

ENRICO MATTIEVICH

JOURNEY *to the* MYTHOLOGICAL INFERNO

AMERICA'S DISCOVERY BY THE ANCIENT GREEKS

*The ruins of the Andean labyrinth of Chavín
hold the key to the hidden significance of the Greek myths*

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Ever since Columbus set foot in America, over five centuries ago, scholars of the 'New World' have been finding surprising parallels between the myths, traditions, and rites of the people of America, and those of the 'Old Continent'. Specialists in pre-history and archeology now possess sufficient proof of prehistoric visits to the New World by maritime routes. Ceramic fragments found in Ecuador, beneath deep strata related to the Valdivia civilization, dated 3000 B.C. and identified with the Jamon culture of Japan, are the most ancient proof of visits across the Pacific. One of those ceramic fragments had the unmistakable shape of a ship. Circular mounds, with funeral remains, known as tolas, on the coast of La Tolita, province of Esmeralda, Ecuador, contained skulls that have thin gold pieces in the mouth. Until now, it has been overlooked that it was an ancient Greek custom to place a gold coin—known as obol—under the tongue of the deceased to pay for the trip down the Acheron, and that the Greek word 'Tholos' is the name given to circular monuments.

To the North, on the Atlantic littoral, in addition to the archeological sites uncovered in Terra Nova that proved the Nordic colonization started by Leif Erikson — at the beginning of the 11th century —, various objects and stone constructions of still older origin were found, together with inscriptions attributed to Celts, Phoenicians, and Libyan navigators, proving that adventurers and navigators had been crossing the Atlantic since some millennia ago.

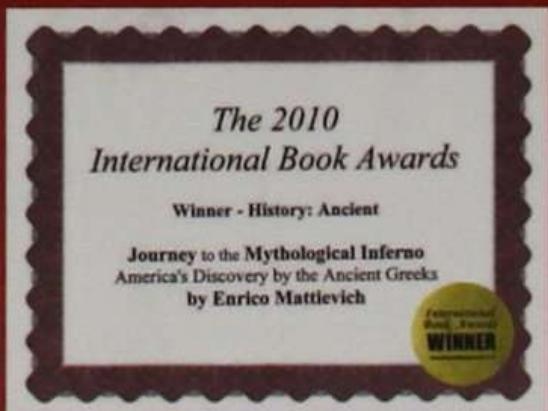
With the growth of Archeology in the 19th century, in addition to the parallels cited above, several others were also increased: artistic, botanic, and linguistic, such as the recent discovery of cocaine in the mouths of Egyptian mummies, that constitute evidence in favor of ancient Greek-Phoenician contact with America. In spite of that, supporters of such early contact could not counter the main objection of those who doubted this evidence: "Why, then, are there no indications of knowledge of America in the Old World literature?"

In *Journey to the Mythological Inferno*, Dr. Mattievich puts an end to those objections by presenting the classic literary texts from the Old World that relate to the knowledge of America, that many historians and geographers have been overlooking until now.

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Journey to the Mythological Inferno

America's discovery by the ancient Greeks

*The ruins of the Andean labyrinth of Chavín hold the key to the
hidden significance of the Greek myths.*

ENRICO MATTIEVICH

TRANSLATED FROM THE PORTUGUESE BY SILVIO MATTIEVICH

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DEDICATION

This work is dedicated to the memory of the late distinguished naturalist Antonio Raimondi, for his insight in geography, archaeology and natural history. Fruits of passionate scientific expeditions achieved in the Peruvian Andes, during the nineteenth century, whereby I came to know and love Peru, since my early university days in Lima.

PREFACE TO THE ENGLISH EDITION

Several important events took place after the first publication of the book—in Rio de Janeiro, 1992—, which will be commented upon in this Preface. Some of these events were consequences of the publication and dissemination of the book; others, such as the discovery of tobacco and cocaine residues in some Egyptian Mummies, added scientific support to the theories presented in this book. Despite the open skepticism of the majority of archeologists, the scientific evidence shows that, starting from the second millennium B.C. and throughout a period of time yet to be determined, there were transatlantic travels together with cultural and mercantile exchanges between Europe and South America, for tobacco and coca leaves must have traveled the Atlantic Ocean in order to be consumed in Ancient Egypt.

Prior to the publication of the book in Portuguese, I was able to present my preliminary findings to Peruvian archeologists in a talk at the National Museum for Anthropology and Archeology in Lima on January 24, 1986. Some years after the publication, I presented the book to the Pan-Macedonian Association of Melbourne, in Victoria, Australia, in January 8, 1995, which was followed by an extensive news article four days later in *Neos Cosmos*, Australia's largest circulation newspaper in the Greek language.

That news report aroused the curiosity of a very important personality: Mr. Antonis Nicolaras, President of the Themistokles Association of Graduates of the 5th High School of Piraeus. Through Mr. Ioannis Neonakis, then Greece's General Consul in Rio de Janeiro, Mr. Nicolaras proposed the publication of the book in Greece. The Greek language translation of this book has been so well received in Greece that it is now on its fourth printing.

The organizers of the first Greek edition, led by Mr. Nicolaras, prepared a three weeks long homeric program beginning on October 6, 1995, with the book launching at The Hellenic Offshore Racing Club of Pireaus; followed by an evening gathering

at The National Technical University of Athens where I gave a lecture presenting my theory. Just before the lecture, I was surprised by the homage received. I want to use this occasion to express my gratitude for those distinctions: a plaque of the City of Pireus, presented by its Mayor, Mr. Stelios Logothetis; the Prometheus Medal, from University President, Prof. Nikolas Markatos, for ‘stealing the fire of the gods’; a commemorative watch, presented by Mr. Nicolaras on behalf of the Themistocles Association of Graduates of the 5th High School of Piraeus; and the Cycladic style statuette presented by commodore John Marangadakis, president of the Hellenic Offshore Racing Club of Pireus, for my ‘contribution to Greek Archeology’.

Mr. Nicolaras also promoted the Commission that was to be sent to Peru to propose scientific collaborations in Archeology; thus putting in practice the intents of Mr. Daniel Estrada Perez and Mr. Antonis Tritsis, Mayors of Cusco and Athens, respectively, who under the auspices of UNESCO signed, on September 18, 1991, a cooperation agreement declaring Cusco and Athens to be Sister Cities.

In July 1997, the National Technical University of Athens sent to Peru a commission of three Greek professors, led by Prof. Christos Ftikos, and of which I was invited to participate. I accompanied them to all their visits to various archeological sites, especially to Chavin de Huantar and to Cusco. With the collaboration of Mr. Daniel Estrada, the Commission was able to establish a cooperation proposal with the Universidad Nacional de San Antonio Abad, in Cusco. The cooperation agreement was signed in a simple ceremony, outdoors on the patio of the Coricancha Palace, in the precise place where the Spanish conquerors located the garden with the golden plants.

Before learning of the striking toxicological discoveries by Dr. Svetlana Balabanova and her team, in 1992, on the Egyptian mummies—which revealed the use of cocaine in Ancient Egypt—, I had observed a close similarity between the Andean myth of the origin of the coca shrub and the Greek Myths of the origin of the laurel (Daphne).

The psychochemical effects of cocaine (the active component of the coca leaves) are well known; thus the ceremonial use of the coca leaves—in this context referred to as an entheogen—by the Andean people, is unsurprising. In contrast, the use of the laurel as entheogen by the ancient Greeks is truly puzzling, for laurel has no known psychoactive properties. Why would the priestesses in the oracles of Apollo chew the laurel leaves before proffering oracles? As it happens, laurel is strikingly similar to the coca leaves, and the similarities extend beyond that of their leaves. We can infer that the Apollo rituals may have started with the use of coca leaves, imported from South America, and when that trade was cutoff—for reasons unknown—, laurel leaves, because of its similarities, were adopted as substitute. The comparative analysis between the myths about the coca and that of laurel will be discussed in another book (in preparation).

Coca use in the Andean region extended from the north of Chile and Argentina, through Bolivia, Peru, and Ecuador, and up to Colombia. It also extended back in time all the way to Caral¹—the ‘Oldest City’ in America, recently discovered by Peruvian Archeologist Ruth Shady Solis. Considered a magical plant, coca was used by high priests in the various oracles that existed in Pre-Columbian Peru.

The Addendum, at the end of the book, contains, in addition to a photograph showing the striking visual similarities between the coca and laurel leaves, other photographs and documents related to the previous paragraphs.

The theory presented in this book claims that the Greek and Roman myths of the ‘lower world’, the House of Hades, the Kingdom of the Dead or the Inferno originated in South America, specifically in the Andean region of Peru, where the ruins of the Palace of Hades, mentioned in Hesiode’s “Theogony”—written around 700 B.C.—still stand, known as Chavin de Huantar. This theory took form after my visit to the archeological ruins of Chavin

¹ Shells of the megabolinus snail were uncovered in Caral, containing a mixture of lime and coca seeds, a primitive version of cocaine. "The Anthropogene" Editor: John Sweat The Mother city : of Flutes, Cocaine and Snails. Published: 02/11/2004 http://webpages.charter.net/anthropogene/arc_vol2_is2.html.

de Huantar—located in the central Andes of Peru—in 1981. At that time, I was unaware of other related theories, such as the one put forth by Henriette Mertz in her book entitled “The Wine Dark Sea” (1964), or the theory proposed by Christine Pellech in her book “Die Odyssee—Eine Antike Weltumsegelung” (1983). Ms. Mertz suggests that the legendary voyage by Odysseus and his men after the Trojan War—narrated in Homer’s “Odyssey”—could well have taken them from the Gibraltar Straits, and across the Atlantic, to North America. She also proposes that the Argonauts could have navigated down to the South Atlantic Ocean, past the mouth of the Amazon River, to the Rio de la Plata, and that following it upstream they could have reached the Altiplano of Bolivia and Thiahuanaco, where The Golden Fleece was located². Ms. Pellech proposed that Odysseus’ voyage to the Kingdom of the Dead was a real trip to the Niagara Falls.

Shortly before the publication of this English version, I became aware of the existence of the “Chavín de Huántar Archaeological Acoustics Project”, a collaboration between Stanford University’s Center for Computer Research in Music and Acoustics (CCRMA) and Archaeology/Anthropology³, whose purpose is to study the acoustic properties of Chavín de Huantar, which may eventually provide scientific proof to the hypothesis—‘the resounding palace’—presented in this book.

Ever since the first publication of this book in Portuguese, I had always aspired to publish it in English. This first English edition has been possible thanks to my brother, Silvio Mattievich, who translated the book to English, and to the encouragement and support from my colleague and lifelong friend Dr. Jorge Moromisato, Publisher at Rogem Press, who offered to undertake the editing and publication of the English manuscript, for which I will be forever grateful.

**Enrico Mattievich,
Petrópolis RJ, Dec. 2009**

² Childress, "Lost Cities of Atlantis, Ancient Europe & the Mediterranean", p. 143.

³ <https://ccrma.stanford.edu/groups/chavín/publications.html>

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ACKNOWLEDGMENTS

JOURNEY TO THE MYTHOLOGICAL INFERNO was conceived in the summer of 1981, during a visit to the archaeological site of Chavin de Huantar, suggested by my colleague, Professor Erich Meyer, whom I thank for his interest in my archaeological pursuits. I am grateful to my colleagues in the Physics Institute of the Federal University of Rio de Janeiro who, totally or partially, read the original Portuguese manuscript, and offered their helpful observations, particularly João José F. de Souza.

I thank Professor J. Leite Lopes for publishing parts of this book, in three articles in his prestigious *Science and Society* series of pre-prints, by the Brazilian Center of Physics Research (Centro Brasileiro de Pesquisas Físicas).

I am grateful to Miguel Palomino's support during his posting as the Peruvian consul general in Rio de Janeiro, as well as the Greek consul general in Rio de Janeiro, Jean Ch. Neonakis and the vice-consul, Ms. Panayota Liarou, for their efforts in making my work known in Greece.

During the ten years it took to accomplish the present work, more than five trips were made to Peru. During that period, I enjoyed the support of a number of people, some facilitating the localization of rare works, others helping to reach the remotest regions of the country. Hence, my gratitude to the following: Dr. Gloria Zapata, director of bibliographic research of the National Library of Peru; the trip to Pongo de Manseriche, made possible through the efforts of my friend, General Max Verastegui Izurieta, and the high command of the Peruvian Army; General Maximo Bracamonte, the then commander of the Fifth Division of the "El Milagro" Jungle Infantry; Lieutenant Colonel Juan Pacheco Lopez, commander of the Teniente Pinglo Army Base, and helicopter pilot Major Felipe de la Rosa and his crew. I would also like to thank Aero Peru for travel arrangements made in 1989 by the Rio de Janeiro regional manager, Leoncio Cacho.

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PROLOGUE

If we reflect on the rapid progress of humanity in these last centuries, we will notice that a remarkable change started five hundred years ago, with Man's realization of his proper physical context in the universe, as a consequence of Christopher Columbus's discovery of America in 1492, as well as scientific proof, a few years later, that the earth was round. Mankind no longer occupied the center of the universe, the earth was not fixed in space, neither was there an abyss below, where chaos reigned. Perception of this reality provided a solid basis for progress; the cultural origins of humanity, however, remained basically unchanged since prior to the discovery of America: separated into two different worlds, submerged in great mystery, without anyone able to demonstrate the contrary convincingly - until now.

After the discovery of a new world with peoples living in organized urban centers, such as in Mexico and Peru, with extensive roads, pyramidal constructions and religious temples, quite similar to the advanced civilizations of the Old World, various theories were presented regarding their origins and culture, that aroused interminable discussions. The skeptics, after consulting the works of serious classical writers, found no answers. Lactancio and Saint Augustin, for example, denied the existence of antipodes. Aristotle thought that it was impossible to travel from one pole to the other, as it would be necessary to cross the torrid zone, uninhabitable in his opinion, due to the excessive heat from the sun.

Pliny, backing Aristotle's opinion, thought that the immensity of the ocean would be an impediment to anyone daring to cross it, in an attempt to reach the other side of the earth. In short, nothing that could be identified with America was mentioned in canonical works of geography and history. However, as reality showed, it did exist; and if classical authorities did not mention it, then it must have always existed as an isolated world, where no one could ever have arrived, except for men like Lucian, flying on the wings of imagination⁴.

⁴Lucian was born in Samosata, on the Euphrates, around 125 A.D., and was one of the most prolific Greek writers. A caustic writer, he stands out as the purest of skeptics; he disavows nothing, since denial itself is a form of certainty. Irreverent, he ridicules the gods and Homer in his literary satire *The True Story*, so named by antiphrasis, and considered the oldest model of imaginary voyages. His accounts of Odysseus' adventures wandering the ocean and of Ctesias' voyage to India, immediately conveys

Those who sought some hint or awareness of America in history, had to concur with the adage attributed to Pindar, which states that it was forbidden both to the wise and to the ignorant to know what existed on the other side of Gibraltar⁵. Others, impressed by the immensity of the continent, found it strange that it was not known before, and decided to seek some evidence that would corroborate their suspicions.

We shall only examine three texts, noted and commented by various writers, as supposed allusions to an ancient knowledge of America. The first is in three verses of Dante's *Divine Comedy* (Purgatory I, 22-24):

*Then I turned to the right, setting my mind
upon the other pole, and saw four stars
not seen before except by the first people.*

On leaving Inferno, Dante once again observed the starry sky and, looking to the right, in the direction of the "other pole" (toward the south), saw the Southern Cross. It is claimed that Dante, in the 13th century, mentioned the austral constellation of the Southern Cross - which is not visible in the Northern Hemisphere - in reference to ancient voyages and lost lands located in the Southern Hemisphere. Other writers see these verses as a reflection of the poet's profound astronomical knowledge, obtained by consulting Ptolemy's *Almagest*⁶.

The second text is in the tragic chorus of Seneca's *Medea*, 375-379:

*There will come an age in the far-off years when
Ocean shall unloose the bonds of things, when
the whole broad earth shall be revealed, when
Tiphys shall disclose new worlds and Thule not
be the limit of the lands.*

the reader, to space, to the moon and to the sun (*Oeuvres completes de Lucien de Samosate*; traduction de Belin de Ballu; Tome premier; Editeurs Garnier Frères, Paris, 1896).

⁵ These first discussions concerning the absence of any mention of America by the classic writers is widely commented in Joseph de Acosta's work *Historia natural y moral de las indias*; Libro primero, first published in 1590.

⁶ Vivante, A. and Imbelloni, J. *Libro de las Atlantidas*, p. 43, Bib. Humanior, Buenos Aires, 1939.

The name “Thule” alludes to an island or a land located in the Arctic Circle (possibly Iceland or the Shetland Islands), that was sung by Greek and Latin poets as the extreme boundary of the world. There is evidence that Columbus himself noted these verses as a prophetic call, directed to him.

The third text, frequently indicated as another allusion to knowledge of America, is found in some verses of the Bible, particularly I Kings, where King Solomon’s allies, the Phoenicians, are mentioned as undertaking sea voyages to the mysterious Ophir.

I Kings, 9; 26-28:

King Solomon built a fleet of ships at Ezion-geber, near Eloth on the shore of the Red Sea, in Edom. Hiram sent men of his own to serve with the fleet, experienced seamen, to work with Solomon’s men; and they went to Ophir and brought back four hundred and twenty talents of gold, which they delivered to King Solomon.

I Kings, 10; 11:

Besides all this, Hiram’s fleet of ships, which had brought gold from Ophir, brought in also from Ophir cargoes of almug wood and precious stones.

After Columbus’ discovery of Hispaniola (Haiti), it was identified with Ophir because of the gold taken from there; later on, for the same reason, many claimed the discovery of Ophir on the Peruvian coast. Actually, biblical information is very vague in this respect; therefore, the location of Ophir remains a mystery.

The history of humankind is a speculative science, filtered, mutilated and deformed by time and by many historians, called critics. In order to improve it, a permanent reexamination is necessary, comparing it with new evidence that arises daily in other areas of science. This criterion did not predominate in 1875. In that year, the International Congress of Americanists, in Nancy, France, declared the matter definitively closed, giving rise to the *desideratum* that, henceforth, the colonization of America by Egyptians, Assyrians or other peoples, would never again be

discussed⁷.

If the canons of Nancy were still in effect, the results presented in this book would be considered a heresy. The first two aforementioned texts are considered prophesies by some; however, compared to our results, they will appear like simple “fluorescences,” reflecting pallidly a light that the poets themselves were not aware of.

Various Greek and Roman myths will be analyzed in this book, regarding a knowledge of America. Curiously enough, their factual basis was not discovered before - despite exhaustive research - probably because, contrary to what could be expected, their content was too obvious. After the discovery of America, geographers did not expect to find signs of its existence in classical literature; as will be shown herein, however, there is innumerable literary evidence of such ancient knowledge. No one bothered to examine the stories of the lost world, which poets preserved in their songs and priests in their religions, precisely in the place where it was described: on the lower side of the known world, literally Inferno⁸.

The Egyptian priests of the 5th century B.C. did not lie to the Greek Herodotus, considered the Father of History, (II, 122), in telling him that Pharaoh Rhampsinitus had descended alive to the places which the Greeks considered to be Hell. However, no one, not even the actual Father of History himself, believed such a voyage to be true. Nearly 2,500 years after the first recorded story, which reports the voyage of a pharaoh to Hell - a place unknown on Earth - a series of linked facts led the author of this work to a surprising discovery: the mythological narratives of a place called Hades or Tartarus, by the Greeks, contain information of incalculable historical value. Emulating the achievement of Schliemann who, trusting his intuition and the songs of the poets, unearthed Troy over a hundred years ago, we will once again, with the legends and Greek texts at hand, set off to discover the location of the Underworld.

This theory maintains that at least part of Greek mythology has historical foundations, and that it is the result of experience and human activity. It will be demonstrated that the geographical allegories were excellently plotted, based on narratives of tragedies and conquests that

⁷ Ibid., Vivante A. (Introduction). It is unfortunate to record that influential and cultured Americanists like J. Imbelloni invoked this canon in 1939.

⁸ From the Latin *infernus*, sometimes called *inferus*, which is found below.

took place in America, particularly in Peru's Andean region. The mythological interpretation in this work is not arbitrary, but the result of cross references, based on indigenous Peruvian traditions, and substantiated by archaeological and geographical evidence which confirm these interpretations.

In light of these interpretations, Greek mythology reveals that in proto-historic times, in the so-called mythological age, men of extraordinary vigor and courage dared to undertake audacious nautical expeditions and managed to cross the ocean. The poet Hesiod describes them as men of bronze, because they worked this metal. They were proud, pitiless and warlike. They were succeeded by the Heroes, who took part in the Trojan war. These two races had knowledge of America. For still unknown reasons, after the Heroes, these transoceanic contacts were lost. The navigating nations of the Mediterranean entered one of history's darkest periods in the 12th century B.C., which lasted more than three centuries. During this period, the boundaries of the known world were reduced to the geographical model of Homer's times, wherein the earth was considered merely as a flat disk. Nothing remained of the ancient voyages to distant lands other than vague remembrances - myths - preserved for generations in their religions and traditions, and immortalized by poets in national tragedies and epic poems.

As a result of the contacts between the Mediterranean navigators and the peoples of America, the cultural diffusion left deep marks, which Peruvian civilization preserved until the Spanish conquest.

In order to find this lost history in mythological texts, we will take a trip to the Underworld, "the last voyage to Inferno." All care will be taken this time; so as not to get lost we will keep our minds and eyes open, and will be extremely demanding in choosing a guide. Our leader on this journey must be an indefatigable explorer, experienced in these paths. Among other skills, he must be a competent geographer and geologist, know the vast territories and the topography of the land; he must be a physicist, meteorologist, chemist and botanist and, so that no detail remains unanswered, he must also be an inquisitive archaeologist.

Fortunately, it will not be necessary to wait an eternity to start this journey. More than a century ago, a man with these and other abilities wrote his scientific memoirs, the result of a lifetime of dedication to exploration and natural studies, the fruit of 19 years of continuous wandering through the uncharted regions of Peru. On July 28, 1850, a 24-

year-old Italian landed in the port of Callao. His name was Antonio Raimondi, and he arrived to give a material start to his dreams. His life and work may be briefly described as one of the finest and most important episodes in the young history of science in South America, particularly his adopted Peru, where he established the modern foundations of the natural sciences.

During 40 years of prolific scientific activity in Peru, and relying on government support, he undertook geographic, geological, botanical, meteorological and archaeological expeditions. The partial result of that unremitting labor was his major work, *El Peru*, published in over 13 volumes.

In his brief biography, Jose Balta⁹ states that Raimondi was an oracle of Peru; however, in contrast to silent stone oracles, Raimondi's voice will forever remain alive, relating the impressions of his travels with the profoundness of a sage and the curiosity of a child.

⁹ Jose Balta, *La labor de Raimondi*, Imprenta Torres Aguirre, Lima, 1926.

CHAPTER I

THE MYCENEAN ORIGIN OF GREEK MYTHOLOGY

"In the days of old, those Greeks who were considered wise spoke their sayings not straight out but in riddles."
Pausanias, Book VIII; Chap. 8, par. 3

INTRODUCTION

The word *mythology* usually applies to a collection of legends preserved by the most learned nations of antiquity. The classic Greek myths have been objects of inexhaustible curiosity and a principal source of inspiration, where scholars throughout the centuries have gone to interrogate, to conjecture their significance. A significance so veiled and impenetrable that, in most cases, even the same authors of antiquity were unable to comprehend.

To decipher the hidden meaning of Greek legends, one shall begin by accepting myths as veritable “time capsules,” so that the innocently appearing legends actually conserve historical events and notable geographical knowledge of the pre-literal period. Among the “encapsulated” messages in poetic mythology, some will remain hidden in allegories; others will be found explicitly and be mere iconographic descriptions. If antiquity’s most illustrious men would have purposely designed a plan to conserve humanity’s most ancient annals, there would be nothing better for that purpose than using poetic mythology - simple and attractive child-like stories to instruct adults some day in the far-off future.

Obviously, this theory will not be accepted by anthropologists, who judge studies of field mythology to be impossible; or by mythologists who consider the content of myths only by their external and apparent form, as nothing more than popular fantasies of primitive peoples which

have assumed narrative form.

Although Greek mythology is widely known and there is no shortage of dictionaries and handbooks on the subject, the topic is so broad and scattered that this brief introductory chapter will be useful to the reader. One will only focus on myths relevant to the aforementioned theory, where heroes are mentioned who really traveled to the Underworld which - according to such narratives - was located in the western limits or below the earth. One shall review several Greek legends regarding the Mycenaean civilization, whose apogee was between the 15th and 12th centuries B.C.

MYCENEAN LEGENDS

The capital of the Mycenaean empire was Argos, considered Greece's oldest continuously inhabited city. North of Argos, atop a hill on the plains bathed by the Inachus River, lays the site of ancient Mycenae. According to tradition, the oldest wall enclosure formed by enormous blocks of stone, known as "the Cyclopean walls," was built by Perseus with the help of the Cyclops¹.

No other Greek legend is as impressive as that related to this mournful royal house, sung from Homer until the tragic poets. Those who manage to penetrate the millennial secret of the Mycenaean world, says Emil Ludwig in Schliemann's biography, will be able to unveil the most formidable myth of the Mediterranean².

Peloponnese, where Argos is found, owes its name to Pelops, son of Tantalus. The descendants of this king, or *wanax*, as these lords of Argos were called,³ were marked by atrocious fatalities. According to tradition, Danaus had induced his fifty daughters to kill their respective husbands, the fifty sons of Egypt, on their wedding night. Hypermnestra was the only one who saved her husband, Lynceus, who consequently escaped from the tyrant's ambush, avenged his brothers and governed Argos. He, in turn, was succeeded by his son, Abas. The twins, Acrisius and Proetus, sons of Abas, had quarreled since birth. Still young, Acrisius was robbed of the throne by Proetus. Acrisius had a daughter, Danaë, of whom it was prophesied would give birth to a son who one day would kill his grandfather. Accordingly, Acrisius imprisoned his daughter in a bronze tower or chamber, so that no one could approach her. Nevertheless, Zeus fell in love and visited her in the form of a shower of gold. In due time she bore him a son, Perseus.⁴

Acrisius abandoned Danaë and her son in a chest, which was then carried by the waves to the island of Seriphus, where they were welcomed by King Polydectes. Years later, he fell in love with Danaë, which was unrequited. Uncomfortable by the presence of young Perseus, Polydectes contrived a plot to get rid of him. Pretending to marry Hippodameia, he requested wedding gifts of his vassals. Induced by the king, or wishing to distinguish himself, Perseus promised the most terrible gift, the head of Medusa.

PERSEUS DEFEATS THE GORGON MEDUSA

Considering that a tuft of Medusa's hair was enough to make any fortress invincible,⁵ Perseus' task was therefore not an easy one. First, it was necessary to locate the Gorgon's abode, and then to confront her terrible power. The Gorgons were three sisters - Stheno, Euryale and Medusa - the last one being mortal. She was a hideous creature, with boar-like fangs, bronze hands, golden wings and a head full of threatening writhing serpents. Anyone who dared look directly at her was transformed into stone. It would be easy to confront her with today's weaponry; however, during Mycenaean times, one needed the help of the gods. In order to fly, Perseus had to put on Mercury's sandals; and for protection, Pluto's helmet. His weapon was a curved sword, also provided by Mercury.

The three Graeae, daughters of Phorcys, are described by some mythographers as keepers of secrets that revealed the location of the Gorgons. However, like the Gorgons, also daughters of Phorcys, it possibly deals with an echo of the same trinity. In any case, one must remember that there are differences. The Graeae are more passive, having white hair and sharing an eye and a single tooth.

Ovid describes Perseus' uneasiness upon approaching a towering mountain, to search for the frightful booty (*Metamorphoses* IV, 773-786). Beneath cold Atlas there was a safe place, protected by a solid stone wall. At its entrance dwelled the Graeae, who shared an eye among them. While the eye was being passed from one sister to the other, Perseus stole it. Traveling far through trackless and secret ways, rough woods, and bristling rocks, he came at last to where the Gorgons lived. All around him along the way he saw men and beasts who had been turned into stone after having gazed at Medusa's face. But he himself had looked on the reflection of that dreadful face in the bright bronze shield he bore. While she and the snakes were fast asleep, he beheaded her; from Medusa's

blood sprang the swift-winged horse Pegasus and its brother, Chrysaor.⁶

Apollodorus narrates that Perseus was helped by Athena, who gave Asclepius the gift of life and death from the Gorgon's blood: the blood from the veins on the right side, revived men; that from the left side, destroyed them.⁷ With Medusa's head, Perseus flew around the entire world, and saw three times the frozen Bears and the curving claws of the Crab. Finally, he decided to rest on the summit of Hesperia, in the realm of Atlas, son of Iapetus.

In this last fragment, narrated by Ovid,⁸ one notes that he has lost himself in the meanders of the myth, making the resting place exactly at the same point of departure. In any case, this narrative alerts one to the fact that the Gorgons' abode could be situated at great distances from Seriphus, including the other side of the world.

Virgil locates the Gorgons in the Underworld, in the company of other similarly frightful denizens. At Pluto's gloomy palace gate, said the author of the *Aeneid* (VI, 285), there were various ferocious monsters: the centaurs, Scylla, Briareus of the hundred hands, the horrifying hissing Hydra of Lerna, the Chimera armed with flames, the Gorgons, the Harpies and the three-bodied monster (Cerberus).

Among other details, Aeschylus describes the Gorgons as bristling with serpents (*Prometheus*, 799) but, contrary to the majority of ancient authors, he locates them in the direction where the sun rises on the horizon. Aeschylus, through Prometheus' lips, describes the following itinerary which Io, daughter of the founder of Argos, Inachus, had to cover: "You will cross the land of Europa (*Prometheus*, 730-740) boarding the continent of Asia and after crossing the current that limits the continents (*Prometheus*, 790-791), going always towards the East, you will reach the country where the abominable Gorgons live, which no man could glance at without certain death (*Prometheus*, 800)." He affirms in this passage that glancing at the Gorgons means death, without specifying how. Pindar was the first to quote that the Gorgon head of Medusa petrifies (*Pythian*, X, 75).

The oldest literary reference associates the Gorgons with the house of Argos and Pallas Athena. Homer, describing the aegis of Athena (*Iliad*, V, 742-744), says: "therein is the head of the dread monster, the Gorgon, dread and awful, a portent of Zeus that beareth the aegis." And further on (*Iliad*, XI, 31-38), describing the armor of Agamemnon, the greatest Greek hero

who fought at Troy, quotes again the horrible Gorgon, with its frightful gaze.

The Greek mythographer Palaephatus goes further, identifying the Gorgon as a statuary representation of Pallas Athena. He states that Phorcys, a native king of Cyrene (a town in northern Libya), which had three islands in the Atlantic Ocean, outside the Strait of Gibraltar, requested that a statue of Athena be cast in gold four cubits high (approximately 1.8 m), which the Cyreneans, says Palaephatus, named Gorgon.⁹

One notes in ancient traditions, reported by Homer, that there was no motive to fear the Gorgon, only her head. Narrating the wanderings of Odysseus through the Underworld, Homer points out, at the end of the eleventh book of the *Odyssey*, the great fear that the Gorgon's head caused. Odysseus, fearing that Persephone, the goddess of the Underworld, will send the frightful head against him, abandons the house of Hades and sets out to navigate the deep ocean currents.

The productions of sonorous chords are constant in the myths of the Gorgon. Pindar (*Pythian*, XII, 30) relates that the music was invented by Pallas Athena, on the occasion of the Gorgon's death. Athena invents the flute, composed of canes and thin sheets of bronze, inspired by a sinister melody produced by the groaning of the Gorgon and the hissing of serpents.

Beyond the constant association of Medusa with the emission of sound, another important observation is that beneath some shrines, where Medusa was represented in stone, ran a stream of water. When describing the monuments of Argos, Pausanias relates that beneath the sanctuary of Cephisus one could hear the flow of a river. He says that here one finds the head of Medusa sculpted in stone, which local traditions indicate as another work done by the Cyclops (*Pausanias*, Book II, xx, 6-7).

THE LABORS OF HERACLES

The illustrious Heracles, descendant of Perseus and ancestor of the king of Sparta and Argos, was considered Tirynthian by some Latin authors,¹⁰ though other mythological traditions indicate he was born in Thebes, the city founded by Cadmus. In Thebes, beautiful Alcmene, daughter of King Electryon of Mycenae, enticed Zeus. Assuming the appearance of her husband, Zeus visits her on the same night as her legitimate husband,

Amphitryon, was to return home, and makes the night last three times longer. Later, the true Amphitryon arrives and Alcmene, without noting the difference, and perplexed by her husband's vigor, conceives twins.¹¹ Zeus, thinking of his conceived son by Alcmene, takes an oath by the waters of the Styx, that a descendant of Perseus will one day reign over the neighboring nations. However, on the foreseen day of his birth, jealous Hera, knowing the destined glory of Zeus' bastard son, arranges that the son of Nicippe, Eurystheus - also a descendant of Perseus - would against all expectation be born first. Therefore, due to the jealousy and vengeance of a goddess, Heracles was never a king. In compensation, he was the most outstanding vassal of his cousin, Eurystheus¹².

Some of the labors achieved by the Tirynthian hero were immortalized in the geographical toponymy of the Mediterranean. Who does not identify the Strait of Gibraltar with the pillars of Hercules? Today, those who visit the village of Mylooi, situated in the same place of ancient Lerna (10 km south of Argos), will be informed, like in Pausanias' day, 1,800 years ago, that that is where Heracles killed the Hydra of Lerna, the hundred-headed serpent! Clearly, because of such exaggeration, the visitor attributes these fantastic legends to the feverish imagination of the Greeks.

Heracles, in the service of Eurystheus, fulfills twelve "labors," of which three shall be discussed: the triumph over the Hydra of Lerna, the theft of the golden apples from the Garden of the Hesperides, protected by the hundred-headed serpent, and the capture of Cerberus. These "labors" are of interest, since they refer to mythological voyages to the extreme western regions.

HERACLES' TRIUMPH OVER THE HYDRA OF LERNA

The number of heads of the Hydra, which Heracles conquers, does not seem to bother Hesiod, the author of the principal Greek theogony. Since ancient times, this mythological creature was represented with a varying number of heads: some authors give it seven, others nine, fifty or even a hundred. When one of its heads was cut off, two others immediately grew in its place. To make the labor of Heracles even more difficult, Hera sends Cancer, the crab, as an ally of Hydra, to bite Heracles' foot. Finally, with Iolaus's help, who stanched the Hydra's wounds with burning branches to prevent them from sprouting new heads, Heracles kills the Hydra.

Hydra means water serpent.¹² Hesiod describes it as a monstrous being engendered by Typhon and Echidna, and locates it somewhere beneath the earth, inhabited by the Arimoi. The progenitor of that monster, Echidna, is characterized as a nymph of facial beauty, however the rest of her body is shaped like a terrible monstrous serpent. Pregnant by the violent Typhon, she has three frightful offspring: the dogs Orthus and Cerberus, and the Hydra of Lerna. Another uncommon serpent - the product of Ceto and Phorcys, and also related to the Hydra - guards, with its enormous coiled body, the golden apples¹³ in the gloomy depths of the earth, i. e., the Underworld.

THE GOLDEN APPLES OF THE GARDEN OF THE HESPERIDES

The Hesperides, which literally means daughters of the West, were daughters of Atlas. They possessed a garden of golden apples, located in the western limits of the earth. Heracles was sent by Eurystheus to steal the golden apples. To fulfill this "labor," he had to accomplish a series of difficult tasks. Firstly journeying north, arriving on the banks of the Eridanus, the river nymphs there told him where to find Nereus. Heracles captures the prophetic god who tells him where to find the abode of the Hesperides. Moving on through Libya he wrestles with Antaeus, a fearful giant, who challenges all strangers that enter his domain. With his vanquished skulls, he builds a temple sixty cubits high. Antaeus, the son of Gaia (the Earth), possessed the ability to replenish his force whenever falling back to earth. Perceiving this renewable vigor, Heracles lifts him and crushes him to death in a bear hug. Later on, while asleep, he is attacked by pygmies, but easily seizes them all in his lion skin.

Arriving in Egypt, Heracles has another setback. King Busiris, who each year sacrificed a foreigner to end a terrible famine, takes him as victim. Heracles is lashed onto the sacrificial altar, but manages to free himself and kill both the king and his son, Amphidamas. He then resumes his voyage and goes to Ethiopia, where he kills its king, Emathion, son of Tithonus, substituting him for Memnon. Afterwards, he crosses the ocean in a golden bowl of the Sun's, frees Prometheus, shooting down with an arrow the eagle that made its daily meal of Prometheus' liver and, finally, after killing Ladon, the dragon that protects the entrance to the garden of the Hesperides, seizes the golden apples.¹⁴

THE CAPTURE OF CERBERUS

Heracles' last "labor" was to take Cerberus from Hades. This hell-bound creature, with a bronze-barking voice, had three heads, a tail terminating in a serpent's head, and many threatening serpents around its body.¹⁵ To descend to Hades, Heracles is first initiated in the Eleusinian mysteries. Afterwards he goes to the extreme southwest of Greece, and departing from Cape Taenarum, in Laconia, begins his descent to Hades.

When he enters the gates, all the spirits flee, except for those of Meleager and the Gorgon Medusa. On seeing her, thinking that she is alive, Heracles draws his sword, but is soon told by Hermes that it is only a harmless phantom. There, he sees Theseus and Peirithous, who had imprudently descended to Hades. On seeing him, they beg for help. Heracles manages to save Theseus but, due to an earthquake, is prevented from doing the same for Peirithous.

On Pluto's order, Heracles has to overpower Cerberus, using only his bare hands. Consequently, he captures Cerberus, shows it to Eurystheus, and takes the dog back to Hades.¹⁶

THE GARDEN OF THE HESPERIDES

Diodorus of Sicily narrates an interesting rationalized Greek myth concerning the Hesperides, affirming that it was composed in Alexandria by Dionysus, nicknamed "Skitobrachion," for having an arm of leather.¹⁷ The Sicilian historian presents a euhemeristic narrative, whereby the myth would exalt real situations created around individuals who became famous. He relates that Uranus had 18 sons by Titaea, all of whom were called Titans after their mother.¹⁸ Those who stood out were Atlas and Cronus. The former was the king of vast domains, demarcated by the ocean, reason for which his people were called Atlanteans and the highest mountain of his country was called Atlas. He perfected the astral science and revealed to his vassals the spherical nature of the stars. We know nothing of his important teachings, only the surviving myth that represents him supporting the heavens on his shoulders. Of all his sons, the most distinctive and brilliant was Hesperus, reason for which the evening star, Hesperus (i.e., Venus), is named after him.¹⁹

The country known as Hesperitis, according to Diodorus (Book IV, 27, 2), is derived from the name of the daughter of Hesperus, called Hesperis. This Titaness had seven daughters by Atlas who, from the

father's name, were called Atlantides, and from the mother's name, Hesperides. But their individual names were Maia, Electra, Taÿgete, Asterope, Merope, Alcyone and Celaeno, which were given to the principal stars of the Pleiades.²⁰

Ancient mythographers say that the Hesperides (or the Atlantides) were guardians of "melas." This Greek word ($\mu\eta\lambda\alpha$) can signify both apples and sheep. Ovid describes a magnificent garden whereby both hypotheses could be true. According to him, in the kingdom of Atlas, son of Iapetus, thousands of cattle and ovine livestock roamed its pastures. Without any neighbors threatening the lands, gold glittered everywhere, the fronds of the trees gleamed with the reflection of gold, their leaves, branches and fruits made of the precious metal. Atlas, fearful of being plundered of his gold, surrounded the orchard with a solid wall and placed it under the protection of an enormous dragon to prevent strangers from trespassing.²¹

Pliny, the naturalist, believed that the Hesperides were guardians of fruits rather than cattle, but he did not know the location of the garden. He mentions the village of Berenice (near modern-day Benghazi), assuming that it could be there because it was called Hesperis, and also because near this Cyrenaican village runs the only river - actually the small stream of Lathon - near a sacred grove which was said to be where the garden was located. On the other hand, when dealing with the village of Lixos, he affirms that this was the village which the ancient fable made so famous. It is here where the Garden of the Hesperides and the palace of Antaeus were located, and also where the tyrant fought against Heracles. It is surrounded by an arm of the sea, states Pliny, giving poets the idea of a dragon that protected the garden.²²

Apollodorus states that the Garden of the Hesperides was near Mount Atlas, in a place protected by an immortal serpent with a hundred heads and many voices; yet, contrary to the majority who placed it in the Far West, he believed it had to be found among the Hyperboreans, at the northern limits of the earth.²³

Theogony's greatest authority, Hesiod, states that the garden of the golden apples was located on the other side of the ocean (*Theogony*, 215). He places Atlas near the realm of the Hesperides (*Theogony*, 517) and, surprisingly, identifies them (*the clear-voiced Hesperides*) with the Gorgons (*Theogony*, 275).

The captivating mystery surrounding the splendid garden throughout time has dazzled the imagination. Needless to say, there were innumerable attempts to guess the hidden truth to the myth of the Hesperides. According to Father Massien, it was nothing more than a beautiful place, with meadows and a marvelous garden. The dragon could have been a shepherd, a gardener, a river or an arm of the sea. The points most open to speculation are: What were the nymphs guarding with such zeal? Sheep of rare beauty? Or excellent fruits, called apples of gold because of their color? Bodee believed them to be quinces, Saumaise and Spanheim claimed oranges and various other 18th-century scholars thought them to be lemons.²⁴

CLASSICAL LOCATION AND TOPOGRAPHY OF THE UNDERWORLD

In Homer's *Odyssey*, Circe said to Odysseus that the entrance to the domains of Hades/Pluto was situated at the limits of the world, beyond the vast ocean. The sovereign of the Underworld, or better, the personification of that world, was called Hades, when related with the connotations of fear, fright and death, and describing the gloomy aspects of Hell. But when it was related to the mineral wealth the earth conceals in its bosom, or with agriculture, the fruits of the generous earth, i.e., benevolence, it was called Pluto, from Plutus (Πλούτος), which means "wealth."²⁵ Under this benevolent aspect, one of the principal attributes of that god was the horn of abundance, the "Cornucopia," an inexhaustible source of wealth of every kind.²⁶ The location and the topography of that immensely rich, subterranean world, was scarcely quoted in the allegories of epic songs, still alive in Homer's time. In Plato's day, these remote traditions, already impregnated by mystical doctrines, became obscure legends, and were relegated to a secondary plane due to emerging philosophy.

Plato attempts a physical description of earth and the Underworld in *Phaedo*, based on a rationalized interpretation of ancient myths.²⁷ The earth in this description has a spherical shape and is situated in the middle of heaven, maintaining itself in equilibrium among other heavenly bodies in a medium called *ether*.

Plato states that the terrestrial globe is immense, remembering that the region from the eastern coast of the Black Sea to the Pillars of Hercules is only a small part of it. Attributing the dialogue to Socrates, he

describes the earth as seen from space like a leather balloon of 12 segments (possibly alluding to the dodecahedron, the shape which Pythagoreans attributed great importance for being a solid closest to a sphere).

In this model, he imagines that the terrestrial sphere is carpeted, so to speak, of cavities filled with water and air. He describes the concave and concentric regions of the earth, like the concentric layers of an onion, composed of apertures topologically difficult to imagine, and stating that these subterranean regions are intercommunicated. Inside are immense subterranean rivers of inexhaustible torrents of hot and cold water. In the depths, are fires and large rivers of fire. Of all the chasms beneath the earth, the greatest is quoted by Homer: *“down to dark Tartarus, far, far away, where is the deepest gulf beneath the earth”* (*Iliad*, VIII, 16), and which the same poet mentions in several other passages, also cited by other authors as “Tartarus.” In this mythological interpretation of the earth, Plato describes the circulation of water through various subterranean layers, like a serpent that coils several times around the earth, before finally discharging in Tartarus.

Continuing the description of the Underworld, he states that the streams are numerous, of considerable flow, and of various types, but which the four principal rivers are the Acheron, the Pyriphlegethon, the Styx and the Cocytus. The Acheron flows in the opposite direction of the ocean, crossing deserts flowing beneath the earth, and arriving in the Acherusian swamps where the greatest numbers of dead souls are found. Soon after emerging from the spring, the boiling water and mud plunges onto a vast place burnt by violent fires, forming a lake bigger than the Ionian Sea. Emerging from twisted and muddy meanderings, it coils around the earth and arrives in the swamps of Acherusia, in Tartarus.

The Pyriphlegethon is formed by flowing lava which emits fires through various points on the earth's surface. In front of it a savage and frightful river discharges its waters. By its appearance and shady blue color this river is called Stige, which forms the lake Styx (usually a river in mythological narratives). After having deposited its waters into the lake and having acquired frightful properties, it is swallowed by the earth. The Cocytus advances, in spirals, opposite to the Pyriphlegethon and sheds its waters in Tartarus.

Certainly with this topography of the Underworld, which Plato based on mythology, no hero would know how to penetrate it. And so,

through the works of scholars and philosophers, the innocent allegories became incredible explanations. The paths to the domains of Pluto seemed lost forever.

CHAPTER II

GEOGRAPHIC INTERPRETATION OF HESIOD'S THEOGONY

*Lasciate ogni speranza, voi ch'entrate.
Dante, Inferno, III, 9
(Abandon any hope, you who enter)*

ATLAS-HESPERIDES

In geographical literature and in Greco-Roman poetry there has always existed a close relationship between the “sustaining Titan” and the “lands of the setting sun.” The binomial Atlas-Hesperides is quoted in the *Theogony* - a Greek treatise of the gods - written by Hesiod around the 8th century B.C. According to this treatise, next to the Hesperides - which guarded the golden apples - somewhere in the western limits of the earth which the Greeks believed to be Tartarus, the son of Iapetus - Atlas - transformed into a high mountain, supports the sky on his shoulders. Hesiod describes the Western divinities and their abode, next to Atlas, in the following verses of the *Theogony*.¹

211-216: *Night gave birth to hideous Moros and Black Ker
and then to Death and Sleep and to the brood of Dreams.
After them dark Night, having lain with no one,
gave birth to Momos and painful Oizys
and to the Hesperides, who live beyond renowned Okeanos
and keep the golden apples and the fruit-bearing trees.*

274-277: *...the Gorgons who dwell beyond glorious Okeanos
at earth's end, towards Night, by the clear-voiced Hesperides,
Sthenno, Euryale, and ill-fated Medousa,
who was mortal¹⁰; the other two were ageless and immortal*

517-519: *By harsh necessity, Atlas supports the broad sky
on his head and unwearying arms,*

¹⁰ Perseus beheads her

at the earth's limits, near the clear-voiced Hesperides...

734-747: *There, dwell Gyges, Briareos, and high-mettled Kottos,
ever the trusted guards of aegis-bearing Zeus.
There, in proper order, lie the sources and the limits
of the gloomy earth and of mist-wrapt Tartarus,
of the barren sea, too, and of the starry sky
- grim and dank and loathed even by the gods -
this chasm is so great that, once past the gates,
one does not reach the bottom in a full year's course,
but is tossed about by stormy gales;
even the gods shudder at this eerie place.
There also stands the gloomy house of Night,
ghastly clouds shroud it in darkness.
Before it the son of Iapetus (Atlas) stands immovably and
on his head and unwearying arms firmly supports the broad sky.*

In verses 211-216, the personification of night and its descendants are considered ominous entities, and were located in the West, since the Greeks believed the Hesperides to be dwellers of “Hesperia,” which means “the Western region.”

In verses 274-277, the Gorgons are identified with the Hesperides and, like them, they also lived “beyond the glorious Ocean.” This place, situated at the extreme western frontiers, could be identified with a region on the other side of the Atlantic Ocean. The expression “towards Night” by antonomasia means the antipodal region, facing the sun. There is nothing from which one can infer the earth's form; however, the reference which deals with a region that has the same periodicity of day and night is found in verses 746-757, as follows:

746-757: *Before it [the house of Night] Atlas stands erect and on his head
and unwearying arms firmly supports the broad sky,
where Night and Day cross a bronze threshold
and then come close and greet each other.
When the one descends, the other shrinks away,
and the house is never host to both of them
but always one of the two is out and away from it
and roams over the earth, while the other inside it
awaits the appointed time for its own journey.
The one brings to mortals the light that sees all,
while the other, the harmful Night, veiled in dusky fog,*

carries in her arms Sleep, Death's own brother.

In the Hesiodic vision of the cosmos, the heavenly bodies, nature and its manifestations possess divine attributes and are personified; however, they represent abstractions of reality that correspond perfectly to observed facts.

Once having defined where the “gloomy house of Night” lies, one must ask: how far toward the West does Hesiod place Tartarus and its “gloomy house”? This information can be deciphered from verses 720-725, as follows:

720-725: *[The remote place is] as deep down below the earth as the sky is above it; so deep down into the gloomy Tartarus they were cast. A bronze anvil falling from the sky would travel nine days and nights to reach the earth on the tenth day and a bronze anvil falling from earth would need nine days and nights to reach Tartarus on the tenth day.*

What was Hesiod’s message in these verses? Certainly a great distance; yet, nothing more than that. In order to reach a destination, one needs to indicate the direction, but this information was not included in these verses. Despite being obvious, this requirement was never taken into consideration, so that Tartarus was assigned to an imaginary place inside the earth, in the direction of a falling body.

Since time immemorial, nautical distances were referred to in terms of navigational time, where speed is implicitly considered. It is possible that Hesiod was also inspired by this model.

Maintaining a prudent skepticism in regard to the kinetic knowledge within reach of the poet, whatever the result of the strange “idealized experience” proposed in verses 720-725, in order to reach Tartarus (verses 274-277) one should head towards the setting sun, rather than the center of the earth.

The binomial Atlas-Hesperides was sought in vain by geographers and travelers who searched the remotest western regions of the earth. Three centuries after Hesiod, Herodotus - the Father of History - also searched the lofty mountain of the West. After traveling through Egypt and parts of western Africa, Herodotus claimed to have located the famous Atlas! The incredible episode is described in Book IV, Chapter 184.

After another ten days' journey from the Garamantes there is again a salt hillock and water; men dwell there called Atarantes. These are the only men known to us who have no names; for the whole people are called Atarantes, but no man has a name of his own. These, when the sun is exceeding high, curse and most foully revile him, for that his burning heat afflicts their people and their land.

After another ten days' journey there is again a hillock of salt, and water, and men dwelling there. Near to this salt is a mountain called Atlas, the shape whereof is slender and a complete circle; and it is said to be so high that its summits cannot be seen, for clouds are ever upon them winter and summer. The people of the country call it the pillar of heaven. These men have got their name, which is Atlantes, from this mountain. It is said that they eat no living creature, and see no dreams in their sleep.

Malte-Brun (1826) wasted few words in discrediting Herodotus' geographical knowledge of western Africa:² “*Son Atlas semble être une montagne isolée dans le désert.*”³

Pomponio Mela⁴ (50 A.D.) lost no time in searching for that mountain; he, however, elevated a bit the column which Herodotus claimed to have found in northwestern Africa:

In the middle of the sandy region is Mount Atlas, elevating its enormous mass, steep, inaccessible, due to the sheer rocks that surround all sides; as it rises ever so high its breadth diminishes; its summit is so high, that it is possible to see it loosing itself in the clouds, so that its head not only touches the sky and the heavenly bodies, but it also sustains them.

Strabo⁵ (66 B.C.-24 A.D.) describes the geography of Africa and indicates that, on passing through the Strait of Gibraltar, there is a mountain which the Greeks called Atlas, the same one which the Barbarians called Dyris. Malte-Brun states that it was known as Daran by the Arabs.

This is the brief history of the mountain called Dyris or Daran by the natives of Libya which, after Herodotus, became known as Atlas. Today, this name belongs to a mountain range crossing Morocco from southwest to northeast, reaching an altitude of 4,170 m near Asni (Marrakech). This mountain was also identified with the mythological “Silver Mountain” quoted by Aristotle as well as Promathos of Samos.⁶

Herodotus' report permits us to consider the credibility of mythological narratives of the time. Paradoxically, with that episode, he

contributed in such a way that, later, the Atlas-Hesperides myth was considered a fable. There is no place in western Africa that fits the description of the mountain that Herodotus claimed to have found, neither the topography described by Hesiod. If Atlas, the Hesperides, the “Silver Mountain” and the topography of Tartarus - or something representing them - had really existed, then, in Herodotus’ time, these places were not found within the borders of the western world. Were, then, the confines of the known world reduced?

TARTARUS, HELL OR SOUTH AMERICA?

If there ever existed a region that inspired the verses of Hesiod, it begins at the mouth of the Amazon River and continues along the extensive water basin that penetrates the dense Amazon rain forest, up to the Andean buttress (*Theogony*, 739): “*grim and dank and loathed even by the gods.*” Impressions of navigators who traveled along the Amazon more than three thousand years ago? “*This chasm is so great that, once past the gates, one does not reach the bottom in a full year’s course.*” (*Theogony*, 740) Exaggeration? Or would it be the length of a dangerous sea voyage from the Northern Hemisphere down to the Southern Hemisphere, and then sailing up the gigantic river, until the impressive gates of the Pongo de Manseriche? A deep and narrow gorge that strangles the Marañón River, through mountains that rise 600 meters (*Theogony*, 740-743): “*this chasm is so great that, once past the gates, one does not reach the bottom in a full year’s course, but is tossed about by stormy gales; even the gods shudder at this eerie place.*” In the Upper Marañón, within the Pongo de Manseriche and its upper course, dangerous whirlpools form with frequency. Adventurous explorers relate that the craft has to be managed with great skill so as not to be trapped in the whirlpools.⁷

The aforementioned verses can be better appreciated in light of the experiences recounted by the adventurers and explorers who navigated the upper course of America’s greatest river. There is no better testimony than those of the pioneer explorers who passed through the famous Marañón gap called Pongo de Manseriche, or Gateway of Fear in Quechuan. Pongo is a corruption of *puncu*, a Quechuan word that means “gap” or “gateway.” The Pongo de Manseriche is the first and principal gap that appears when navigating up the Amazon. Perhaps this pongo, and subsequent others, gave origin to the mythological gateways that had to be crossed to gain entry to Hades.

LA CONDAMINE'S JOURNEY THROUGH THE UPPER MARAÑÓN

The first adventurer to descend the Marañón and cross the Pongo de Manseriche in a canoe was the Spaniard Juan Salinas de Loyola, on August 24, 1558.⁸ The gold that glittered along the shores of this river caused many to navigate the Marañón; the first scientific expedition, however, to cross the narrow gorge of Manseriche, was that of Carlos María de La Condamine, in 1743. It is this expedition which will be examined closely, without overlooking the valuable observations made by other courageous explorers.

La Condamine visited South America's equatorial region, in 1736, as part of a scientific expedition sponsored by the Science Academy of Paris, to determine the earth's size and shape. The ten-year expedition was marked by dangerous and life-threatening situations. Nevertheless, there were many gratifying moments. One of them occurred during his stay in Shushunga (Chuchunga): after having crossed a swollen torrent with his mule pack, where all his instruments, books, diaries, drawings and papers were soaked, the French scientist recalled:⁹

Eight days have passed since I arrived in this place, and time rapidly passed by; but it wouldn't be possible to dry all my belongings in the sun in less time, exposing the sun's rays to the bottom of my trunks. I did not have to fear thieves nor snoopers, I was amongst savages. I abandoned myself to them after having lived amongst the civilized; dare I say, I don't miss their treatment. After many years of commotion and continuous agitation, I finally enjoyed myself for the first time with gentle tranquillity. When recalling the fatigue, suffering, and danger that happened, it seemed dreams. The silence that dominated this solitude made me feel grateful; I seemed to breath more freely. The hot climate was lessened by the cool waters of a river that recently emanated from its spring, and by the dense forest that shaded its margins.

A prodigious number of strange plants, unknown flowers, offered me a new and varied spectacle. At intervals amongst my tasks, I took advantage of innocent pleasures with my Indians, I swam with them, admiring their fishing and hunting abilities. They offered me the most select part of their fishing and hunting. They all obeyed my orders; the tribal chief was the most hurried in serving me. I was illuminated at night with aromatic woods that imbued the air with their fragrant resins. The sand I stepped on was mixed with gold.

One shall accompany La Condamine's journey, from Loja (the Andean point where the waters split and descend toward the two oceans) to Jaen,¹⁰ where it is possible to embark on the Marañón and navigate toward the Amazon. Through the adventures of this intrepid explorer one shall sense the impressive topography that could have been the scenario that inspired Hesiod's aforementioned verses.

From Loja to Jaen one crosses the eastern Andean spurs. One continues through the forest where it rains daily nearly year-round. Under such conditions it is impossible to maintain anything dry, especially leather objects, which give off an unbearable smell when they rot.¹¹

On the way to Jaen one has to cross many rivers, some by swimming; others over suspended bridges, built from lianas and fibers extracted from certain trees, and yet others on rafts, which are built on the spot for this purpose. The region's rivers flow to the Chinchipe which, when it meets the Marañón, measures some 200 meters across. Just before this point, on the right bank, the Utcubamba River also adds its waters to the Marañón.

The departure point of La Condamine's river journey to the Atlantic Ocean was near the Shushunga River, at the confluence of the Imaza and the Marañón Rivers (no. 5 on the map of the Pongo de Manseriche), Fig. II-1. See the location of this map in Fig. II-2, region C.

After having reinforced the Indian-constructed craft, on July 8, 1743, he continued his journey, passing through the Pongo de Cumbinama (no. 6). Here the river is 40 meters wide with numerous rocks threatening navigation. On the following day, La Condamine discovered Hell when he entered the whirlpool of Escurrebragas, also called Haukichaki (no. 7). Here the waters of the river pound against a steep wall of rock, forming a deep cove. Forced by the rapid change in the river's course, the current forms a turbulent whirlpool, where objects are drawn into its frightful vortex.

La Condamine's craft was imprisoned in the Escurrebragas whirlpool for an hour, until the four Indians traveling with him cast some lianas from the rocks and managed to free him.

Continuing his voyage, he crossed a third pongo, a narrow passage called Huaracayo (no. 8), where the river is forced to flow between two steep walls 60 m apart. Later that same day he arrived at the mouth of the Santiago River (no. 9), known for its rich gold deposits, and

for having being the last stronghold of the Jivaros tribe, who preserved the macabre art of shrinking human heads.

La Condamine had unknowingly reached the gateway that in other times might have offered access to the frightful realms of Pluto. At noon on July 12, he gave orders to unfasten the raft, placed it in the middle of the current, and initiated the crossing of the Pongo de Manseriche (no. 10), describing the following:¹² “*...the raft at the mercy of the current was dragged with speed; the channel became visibly narrower, the speed of the current and the noise of the waves progressively increased. At once I found myself in a deep, narrow and tortuous corridor, eroded by the waters and illuminated solely from above. A number of protruding rocks and many trees projecting towards the middle of the river formed a vault which became somberly lit; the high edges, that disappeared from sight, seemed to appear within arm's reach...*”

The entrance to the pongo begins less than four kilometers below the mouth of the Santiago River, its 500-meter width, at the entrance, funneling down to only 30 meters at the narrow point of the gorge. La Condamine estimated the speed of the current, here, at two fathoms per second (about 14 km/h). “*In the narrow part,*” relates the courageous explorer, “*in the middle of the current, there is a rock protruding from the water when the waters are low, but it was submerged more than one fathom¹¹ when I passed by; nevertheless, the mass of water was in a turbulent circular motion, which spun my raft causing it to hit violently two or three times against the rocks...*” He took about one hour to pass through the pongo. On the other side, the river widens once again, reducing the speed of the raft. He arrived at Borja, a small settlement on the left bank of the river. There, a maze of lagoons and channels begins, aquatic paths that extend through the dense forest. The only obstacle in sight is the mountain range of the pongo; on the other side, the horizon extends as far as the eye can see.

Referring to the difficulty of navigating the pongo, he says: “one does not go down the pongo by canoe, unless the waters are sufficiently low; during this period it is possible to manage it. Under such conditions the canoes can also go upriver, though with great difficulty, but which is not possible for rafts.” As for the advantages and dangers of navigating by rafts, he explains: “The construction of the raft is done by joining the logs together with lianas, conferring considerable elastic properties that can

¹¹ Old linear measure, used until the adoption of the metric system, equivalent to 1.949 m

cushion collisions. The greatest danger with these craft is to fall into the whirlpools, outside the current of the river, as happened to me in the Escurrebraga passage. Not a year had passed, before my voyage," recalls the French explorer, "when a missionary was trapped in one of these whirlpools, remaining imprisoned for two days, without provisions, until a sudden flooding of the river placed him back again in the current."

TOPOGRAPHY OF THE PONGO DE MANSERICHE

Further information on the topography and navigability of the Pongo de Manseriche can be found in the reports of Up de Graff's Peruvian forest expedition. This author, revealing a natural talent for narration and meticulous observation, traveled along the pongo a number of times in the early 1900's, including navigating upstream in a small canoe.¹³

In one of the pongo's most dangerous spots, where a large whirlpool had formed, occupying a great part of the river's width, Up de Graff observed a curious phenomenon. While leaning over a rock, and studying how to overcome this barrier, the water rose and fell continuously, with at least a six-meter variance. The seemingly breathing effect of the river was due to the waves within the narrow channel formed by the pongo. This oscillation was caused by the sudden flooding of a tributary of the Upper Marañón. While observing this amazing water inferno, he was unexpectedly surprised by the practical demonstration of the terrible destiny awaiting the unfortunate navigator who happens to fall into that awesome gulf.

A gigantic *guaycan* came roaring down, dragged by the currents. This gigantic tree, measuring some fifty meters in length, was wrenched out by the sudden flooding of the river bank on which it stood. It was approaching so fast, that he thought it would easily overshoot the fatal spot. It nearly did, but was captured by the whirlpool, scraping the rocky walls of the gorge with its roots and branches, in a seemingly vain attempt to hold on. It circled three or four times, each time closer to the center until, finally, with a shudder, stood up, and was swallowed, disappearing without a trace.

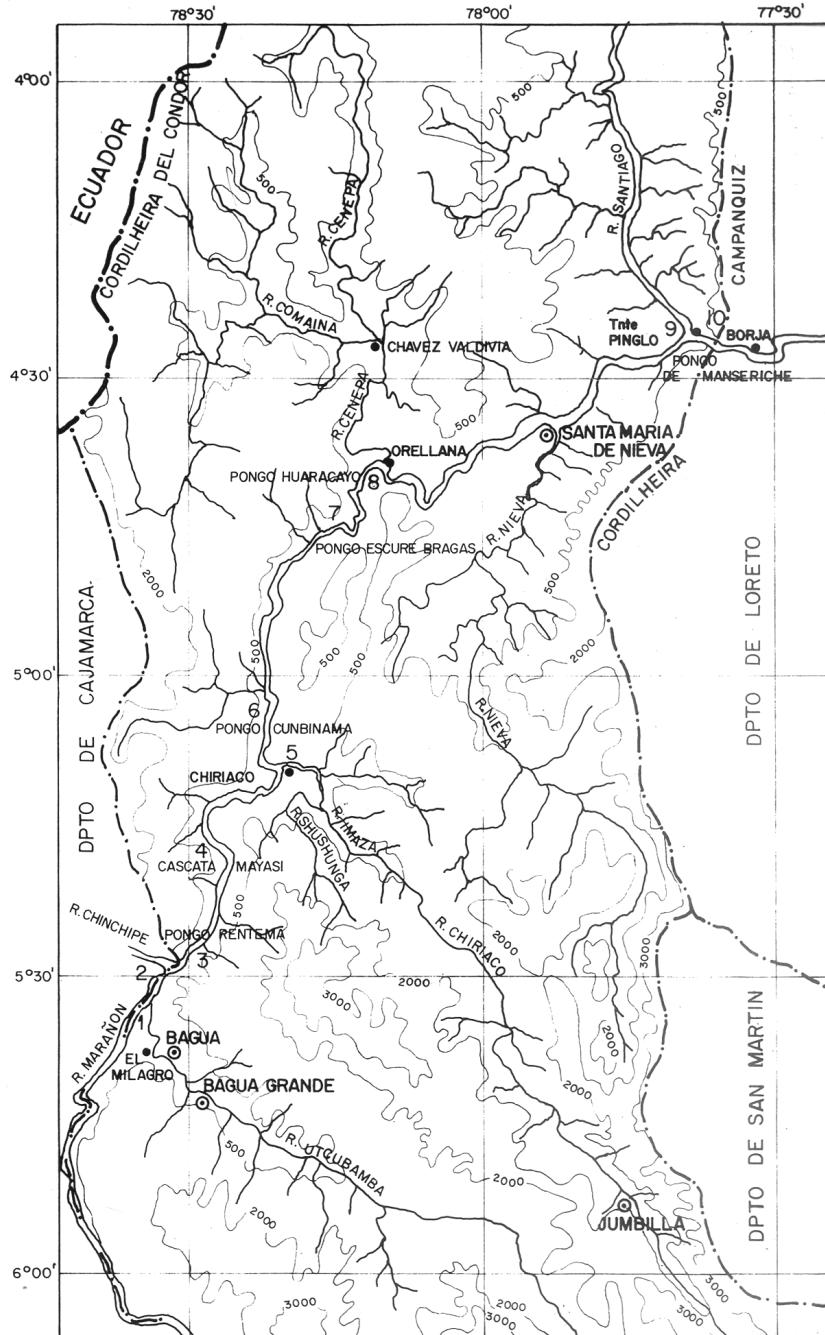


Figure II-1. Map of the Amazonas Department (region C of Fig. II-2) indicating the location of the Pongo de Manseriche and other pongos of the Marañón River.

As far as one knows, the last technical information on the Pongo de Manseriche is from the Polish engineer Rene Sigetinsky.¹⁴ According to him, the difference in level along the 4 km separating the entrance and exit to the pongo is 5 m, resulting in an inclination of 1.25 m/km. The Santiago River discharges on the left bank of the Marañón River, 4-5 km above the pongo. The sudden swelling of this river produces large whirlpools, especially in bends and around salient rocks. Prior to reaching the pongo's half-way point, downriver, there is a massive rock (quoted by La Condamine) which sometimes emerges like an island toward the middle of the current. The engineer Guillermo Hartmann, while studying this section of the river, managed to photograph this rock during the dry season.

THE PONGO DE RENTEMA

Before the Pongo de Cumbinamá and the other pongos crossed by La Condamine, the Marañón River passes through a branch of the eastern Andean ranges, within a grandiose natural corridor called Pongo de Rentema (no. 3, Fig. II-1) with 38 difficult passages over a distance of 35 miles (56 km). The engineer and scientist Arturo Wertheman, who visited the region in 1870, considered the crossing of the frightful Pongo de Manseriche to be a leisurely ride, compared to navigating the Pongo de Rentema. His description of the adventure is harrowing¹⁵: while navigating the Marañón on a raft from the mouth of the Utubamba River (no. 1), and after being dragged 20 minutes by the fast current, he passed in front of the Chinchipe River (no. 2), and further on entered the Pongo de Rentema (no. 3). Here the current, flowing rapidly between the high hills, increased in force. At times dragged with frightful speed, at others retained by the whirlpools, he made unprecedented efforts to overcome them, his raft frequently crashing against the rocks, until finally reaching a calm stretch. A too-short respite when navigating this part of the river. The gorge continued to narrow, reaching a width of only 30 meters, between menacing, towering rocky walls. As he penetrated the abyss, the noise of the water became a terrible roar. Suddenly the river disappeared from sight and the raft fell down a precipice, at the bottom of which a dense mist of water rose, concealing the danger. Here, the waters of the mighty river cascade into a waterfall 4 to 5 meters in height. The

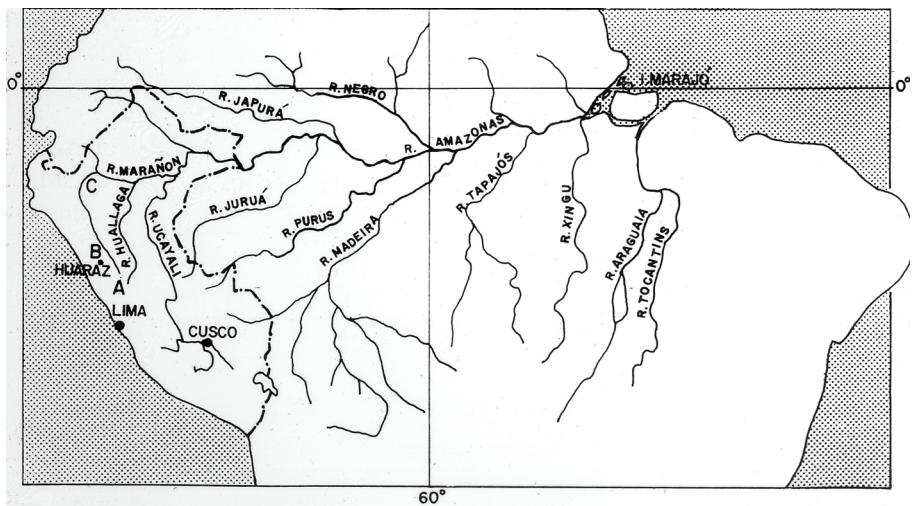


Figure II-2. Hydrographic basin of the Amazon River.

With the following geographical regions: A, origin of the Marañón River; B, Huaraz, capital of Ancash, where Chavín de Huantar is located; C, Department of Amazonas, where the Pongo de Manseriche is located.

raft carrying the bold explorer was thrown to the bottom of the waterfall. This place is known to the Indians as Mayasi (no. 4). Without a doubt, this would be the final point of the journey for anyone navigating the river upstream.

CAN ONE RECOGNIZE THE AMAZON IN HESIOD'S *THEOGONY*?

The 6,280-km long Amazon surpasses the Ganges by two and half times; is twice the length of Europe's Danube and Volga Rivers, and is one and half times longer than the Mississippi and Congo Rivers; moreover, it surpasses Asia's longest river, the Yangtze. Only the Nile is longer, surpassing it in length by 10%.¹⁶ In compensation, the Amazon's average flow rate is 180,000 cubic meters per second, making it sixty times greater than the Nile's. No river in the world can compare to the Amazon in water volume, equal to one-fifth of all the fresh water circulating on the earth's surface. Its notable width and the storms that form on its surface, agitating its waters with strong winds and creating choppy waves, have earned it the epithet "sea of fresh water."

The allusions to a topography of Hades in the myths of the Underworld, could be the result of the knowledge of America by

Mediterranean navigators in proto-historical times. A river as notable as the Amazon, in this case, could not pass unnoticed. The following question then arises: Can one recognize it in Hesiod's *Theogony*?

One can ascertain in Hesiod's *Theogony* that some of the verses allude to the earth's hydrographic system. After quoting a list of 25 rivers, referring to the divine hydrographic family engendered by Tethys and Ocean, Hesiod mentions three thousand lesser ones, associated with slender-ankled Oceanides! (*Theogony*, 362-370)

*These are the eldest daughters born to Tethys
and Ocean, but there are many others.
Ocean has three thousand slender-ankled daughters
- splendid children of goddesses - who roam in beries
and haunt the earth and the depths of the waters alike.
And there are as many tumbling and rushing rivers,
all sons of Ocean and queenly Tethys.
It is hard for a mortal to recite the names of all,
but those who live by them know each of their names.*

However among all the daughters of Tethys and Ocean, who personify rivers, the one that stands out is Styx, for being superior to all ("...and Styx, who holds the highest rank," *Theogony*, 361). The Styx (or Stige) was always quoted by Greek and Latin poets as the principal watercourse and one of the entrances to Hell. Dante's work was inspired by ancient traditions; to penetrate the Hell described in his *Inferno*, it was necessary to cross "infected swamps that extend beyond the horizon." ("Una palude fa, c'ha nome Stige." *Inferno*, VII, 106)

The name Styx (Στίξ), from its genitive, Stygos (Στίγος), means glacial or chilly, as well as horrendous. Without exception, these are appropriate descriptions of the Marañón River, which originates in the frigid, grassy, high-altitude Punas region of the Andes and, later, when it becomes navigable, manifests its frightful and unpredictable character by forming whirlpools that only the hardiest dare to brave. The frightening facts recounted about this mythical river exceed fantasy; one of them, however, could have been even more frightful. It became a legend, an insoluble mystery, an impossible reality: "There dwells a goddess loathed by the gods, dreadful Styx, eldest daughter of Ocean, whose stream flows back on itself" (*Theogony*, 775-776). We find the solution to this enigma in real life, identifying it with the most surprising phenomenon observed on the Amazon River - the dreadful *pororoca*. This is a curious undulating

phenomenon, that could have hardly been understood by mythographers of antiquity,¹⁷ so that it was simply mentioned as the “Stygian wave.” To modern commentators, the aforementioned verses are generally interpreted as a vague allusion to the knowledge of the circular motion of the ocean.¹⁸

THE POROROCA

As in most rivers, during the incoming tide, a strong wave penetrates the estuary upstream, forming what is called a tidal bore. However, this event, called *pororoca* in the Tupi language, is particularly notable on the Amazon River. This curious phenomenon attracted the attention of European scientists for the first time, in 1744, after La Condamine's report of his expedition to South America to the Academy of Science of Paris. He described the tidal bore of the Amazon in these terms: “*Between Macapá and the North Cape, in the large channel where the river narrows due to the islands, and especially, in front of the Araguari River, the tide offers a unique phenomenon. During the three days that precede and follow the phases of the new and full moon, the syzygial [when the sun, moon and earth are in near alignment] tides occur, when the sea, instead of taking 6 hours to rise, reaches its maximum height in a few minutes.*¹⁹ *As it is easy to understand, this cannot happen calmly. Firstly, breaking the silence of the forest, a terrifying roar announces the pororoca. At the same time as the roar increases, one sees its source approaching: an immense wave of 4m to 5m in height, followed by another, and a third one, up to four waves; at times they follow each other fast, sweeping along the entire width of the channel. The waves advance with prodigious velocity, destroying and demolishing everything they find ahead. I have seen in certain places,*” said La Condamine, “*thick trees uprooted, broken into pieces and dragged long distance by the pororoca.*”

Inexplicably, Dante describes the *pororoca* in his verses, a phenomenon still unknown to Europeans. But, in the verses that precede the description, he warns (*Inferno*, IX, 61-63):

*O voi, ch'avete gl'intelletti sani,
mirate la dottrina che s'asconde
sotto il velame de li versi strani.*

*(O you whose minds are sound,
examine the teaching hidden
under the cloak of the strange verses!)*

Then describing the Stygian wave, IX, 64-70:

*E già venia su per le torbid' onde
un fracasso d'un suon pien di spavento,
per cui tremavano ambedue le sponde;
non altrimenti fatto che d'un vento
impetuoso per gli avversi ardori,
che fier la seiva, e senza alcun rattento
li rami schianta, abbatte e porta fori.*

(And now over the muddy waves was coming a medley of sound full of terror, at which both shores trembled, as though caused by a wind violent with opposing blasts, which strikes the forest and, unbridled, shatters the branches, throws them down and carries them away).

Other descriptions of this phenomenon, along the lines of La Condamine's observations, confirmed its devastating effects as well. Paul le Cointe²⁰ reduced the maximum height of the *pororoca* wave to 3 or 4 m. Actually, the power of the phenomenon appears to vary considerably: not only during the syzygial tides, but according to the time of the year and the year. According to the season, the *pororoca* varies between 50 cm and 4 m; the largest occurring in March, at the mouth of the Amapá River. The velocity of the *pororoca*, at around 10-15 miles per hour (approximately 19-28 km/h), can overturn vessels weighing up to 100 tons.²¹

In a recent article published in *Scientific American*, David K. Lynch²² affirms that the *pororoca* of the Amazon and its tributaries reach a height of 7.5 m and, due to the slight inclination of the river, its effect extends up to 800 km upriver from its mouth.

The *pororoca* phenomenon is the result of tidal forces of the sun and the moon. As these forces are inversely proportional to the cube distance,²³ the greatest contribution is from the moon, since it is closer to the earth than the sun. It may be interesting to note that, although the sun's pull on the earth is nearly 200 times greater than the moon's, its tide-producing force is less than one-half the moon's.

Regarding the etymology of the word *pororoca*, several attempts have been made to find its roots in the Tupi language. Emilio Goeldi presumed that it deals with a word composed of the verb *pora* = jump, leap, with redoubling onomatopoeic combined with the word *oca* = house,

which would literally mean “house jumps-jumps,” i.e., house of the waters (waves) jumping. Yet, the same author recognizes that a better solution is the intransitive verb *porog* = to roar, to explode, of which its gerund is *pororoca*.²⁴ Another attempt defends a Phoenician etymology for the Tupi name, presented by Bernardo de Azevedo da Silva Ramos,²⁵ but it is so confused, that it would not be easily accepted by etymologists.

In light of the evidence gathered in this book, it would be necessary to extend the scope of comparisons, including Greek roots, especially here, where the event is identified in the context of Greek mythology. As such, one might suggest another etymology that satisfies both the homophonic correspondence and the relationship of this phenomenon with its cause. Furthermore, the analogies presented by the late Brazilian researcher Ladislau Netto - unjustly scorned by a group of scholars - were true. This researcher, in a comparative study of the ceramics of Marajó Island with those of the Old World, pointed out the notable similarity of some of the anthropomorphic figures of the island - arms raised, like the hornlike tips of a crescent moon - to the idols found by Schliemann in Troy and Mycenae, and identified by the latter as images of the goddess Hera,²⁶ Fig. II-3. Similar Mycenaen idols were found in Crete, identified with the goddess Artemis, which arms are separated and raised toward the sky, with open palms in a worshipping position.²⁷ Known as Eileithyia or Lucina, Artemis was the protectress of childbirth and, hence, related to the moon.²⁸ In Greek mythology, she is subordinated to Hera, like her daughter, and possesses several attributes, mainly as a goddess of hunting; but also as a protectress of nature and navigation; in particular, she was the patroness of currents and waterways.²⁹

Some of the idols worshipped by the Arapium tribe of the Tapajós River, in Brazil, are similar to the goddess Lucina or Eileithyia. A fragment of the Tupi religion, where we can find this analogy, was preserved by Father João Daniel.³⁰ He states: “*they celebrate the new moon when it appears on the horizon: leaving their huts, delightfully jumping, greeting it, and welcoming it, showing their children as offerings, extending their arms, beyond many other ostensible actions to whom they truly worship.*” And continues: “*They brought out five worshipped stones, all had denominations and were dedicated to an image that denoted the purpose it served. One which presided over marriage like the god Hymen, another that implored successful childbirth.*”

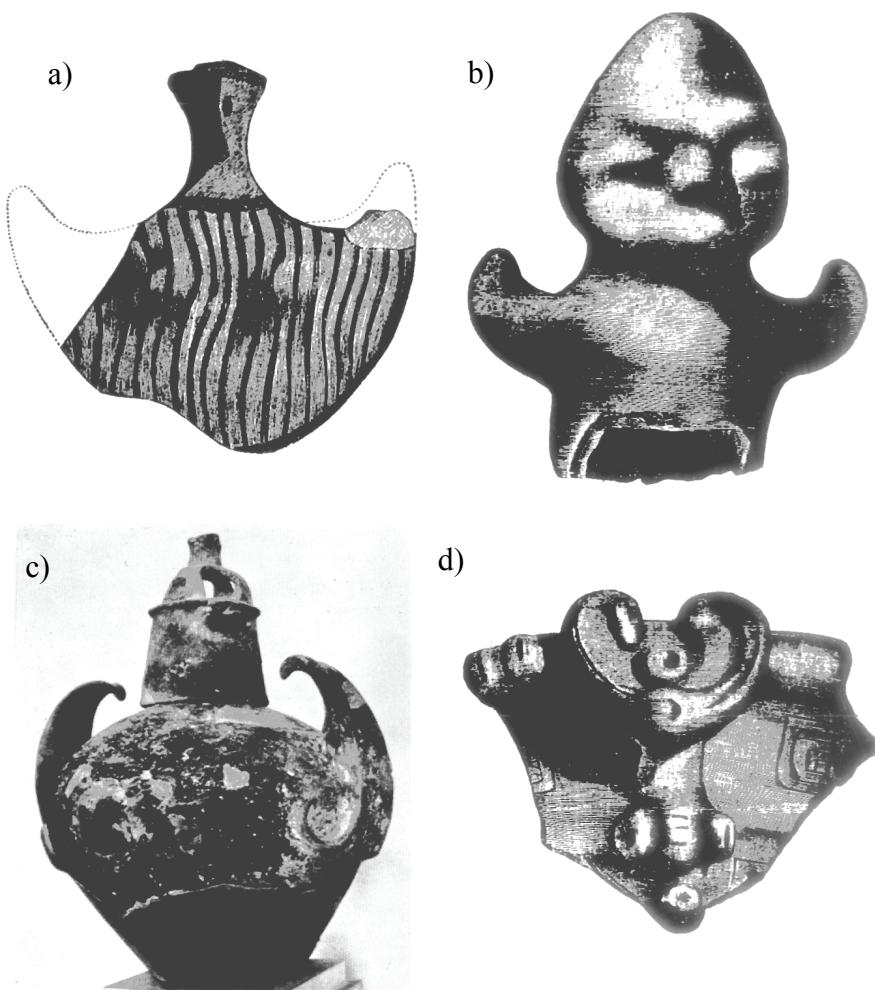


Figure II-3. Ceramic objects with hornlike figures.

a) identified as the goddess Hera by Schliemann; b) idol found in the Pacoval mound (Marajó Island); c) amphora from Poliochni (Lemnos), western Anatolia and d) ornament of a vase found in Pacoval, Brazil.

If the name *pororoca* survived since the day when the goddess with raised arms was worshipped, as in the Marajó images, then it is probably related to the Cretan-Mycenaean etymology of *póros* (πόρος), meaning passage, way of communication, course of water, and *Roccaia* or *Roccas* (Ροκαία, Ροκκαζ), the epithet of Artemis in Crete.^{31, 32} Combining these two words results in the phoneme *poros-roccaia*, *poros-roccas*, or better,

pororoca, which would mean channel or waterway protected by Artemis. Keeping in mind that the *pororoca* occurs during the full moon and the new moon, this etymology is fully justified.

THE OATH OF THE GODS AND ITS GEOGRAPHIC IMPLICATIONS

Today, there would be no reason to take an oath by the waters of the Styx, but if one would have to cross South America along the dangerous route La Condamine followed, one would not hesitate taking an oath by the waters of the Amazon. This is how the navigators must have felt, “descending” from the Northern to the Southern Hemispheres and arriving to the Andes, hoping to “come out alive” from the Underworld and return some day to their homeland. Hence, the proverbial expression of “taking the oath by the waters of the Styx.”

Following is a passage from Hesiod’s *Theogony*, where the terrible oath and its implied geographical location are found:

767 *There, too, stand the echoing halls of Hades,
whose sway is great, and of awesome Persephone.
A hideous and ruthless bough guards the place
770 skilled in an evil trick: wagging his tail
and wriggling his ears he fawns on those who enter,
but he does not let them out again;
instead, he lies in wait and devours those he catches
outside the gates of sovereign Hades and of awesome Persephone.*

775 *There dwells a goddess loathed by the gods,
dreadful Styx, eldest daughter of Ocean, whose stream
flows back on itself; she dwells apart from the gods
in a stately palace roofed by lofty rocks and ringed
by silver pillars that tower into the sky.*

780 *Seldom does fleet-footed Iris, the daughter of Thaumas,
roam on the broad-backed sea to bring her a message
when strife and quarrel arise among the immortals*

*and when one of the Olympian dwellers lies.
Then Zeus sends Iris far away to fetch in a golden jar*

785 *the legendary cold water by which the gods swear great oaths,
water that tumbles down from a steep and soaring rock.
This water flows through the black night
from a sacred river, far below the earth of the wide paths.
It is a branch of Ocean allotted one-tenth of the water;*

790 *the other nine parts wind round the earth and the broad-backed sea
and, silver-swirled, cascade into the briny deep,
but this one branch - this bane for the gods - runs off a cliff.
If any one of the gods who hold the peaks of snowy Olympos
pours a libation of this water and then swears a false oath,*

795 *he lies breathless for no less than a full year's course;
and he cannot come close to ambrosia and nectar
for nourishment, but no longer able to speak or breathe
lies in bed, wrapped in the shroud of evil coma.
And when the illness is over at the long year's end,*

800 *another, even harsher, trial is in store for him.
For nine years he is an outcast to the eternal gods
and does not mingle with them at council or feast
for nine full years, but on the tenth he joins again
the meetings of the gods whose homes are on Olympos.*

805 *Such is the oath the gods made of the primeval and immortal
water of Styx that gushes through a rugged place.*

By not understanding correctly the meaning of the Underworld and its myths, mythographers throughout time thought them to be only symbolic representations, invented by poets. Consequently, they considered illogical that Olympus and Tartarus had something in common, and could share the same place in the *Theogony*. Due to this misunderstanding, verses 118 and 119 were rejected by some mythographers, because Olympus and Tartarus are together (*Theogony*, 118-119):

*the immortals who hold the peaks of snowy Olympos,
and the misty Tartarus in the depths of broad-pathed earth*

There is no reason to suspect that these verses were interpolated, as some

commentators of the *Theogony* claim, in order to do away with them.³³ In verses 767-806, where Hesiod indicates the location of the Styx, the coexistence or proximity of Tartarus and Olympus is implicit. Here, the Styx is subdivided into two parts, each related to the other by its relative extension. Near its source, according to verse 789, it has a tenth part of its waters, i.e., a tenth part of the extension of its waters. This stretch of the Styx could correspond to the Upper Marañón, which flows through the Andes. This interpretation is also reinforced by verse 806, which suggests that the Styx gushes through a rocky country.

At the source of the water of oath, from where it precipitates ice cold from towering rocks - according to verses 778-779 - the abode of Styx rises up to the sky, dominated by high rocks, and supported by pillars of silver. As it is generally known, Peru has rich silver deposits. Exaggerating a little, one could say that certain regions of the Andes are so rich in this element, that the mountains are of silver, or better, like the poet said, they are supported by pillars of silver. As an example of richness, the silver deposits of Cajatambo Province are well known, as well as those found at the foot of the Cordillera Raura, near the source of the Marañón³⁴ (Fig. II-4). Here, the mighty veins of the mineral are impressively vertical, like “pillars of silver.”

Though the Ucayali's sources are located at a greater distance than those of the Marañón,³⁵ the latter, for having a greater volume of water, is considered the natural extension of the Amazon.³⁶ Surprisingly, Hesiod's verses seem to indicate the principal characteristic of the turbulent course of the Upper Marañón, starting from its source. Where should the limit be established between the Upper and Lower Marañón? Could it be the Pongo de Manseriche? It is certainly a notable place, yet small craft can still navigate here. The discontinuity of the Marañón is situated at the Mayasi Waterfall, above the Imasa River. From here, described by Wertheman, the river, heading down toward the ocean, presents no discontinuity. Would it be at this point where the *Theogony* separates the Styx in two? *It is a branch of Ocean allotted one-tenth of the water; the other nine parts wind round the earth and the broad-backed sea and, silver-swirled, cascade into the briny deep.* (*Theogony*, 789-791) A great and exaggerated homage of the poet of the Heliconian Muses to the immense Amazon! But what sensitive soul is not moved when passing through it or knowing of its grandeur? “River of excellence,” “Fresh ocean waters in motion,” “Glory of our planet” are just some of the epithets given this river by noted geographers of the past.³⁷

To verify the present geographical interpretation, one need only divide the total extension of the Amazon River, A, into two parts, N and M, where N corresponds to the length of the river from its source to the point of discontinuity (Mayasi or Manseriche), and M corresponds to the part from Mayasi (or Manseriche) to the ocean. After evaluating the extension of each part, one arrives at its relative values, N/A and M/A. One need not mention that the expected values, according to the interpretation of Hesiod's verses, are 1/10 and 9/10, respectively.

The calculation of these ratios would be simple if one had a reliable table to evaluate the lengths of segments N and M of the river. In the absence of such a table, one can make an estimate using a map of South America and a string stretched along the winding course of the river. The values of the ratios obtained in this manner (using a map with a scale of 1:1,000,000, and considering the Mayasi Waterfall as the point of discontinuity) are: N/A = 1/8 or 0.125; and M/A = 7/8 or 0.875.

Noting that, by following more precisely the river's course in the flat region of the rain forest, where it is more serpentine, the value of M increases; therefore, the result would tend to approximate the expected ratios.

One can also ascertain these values by using the accepted length of the Amazon - 6,280 km - and calculating the distance between its source and the Mayasi Waterfall, by its geodesic distance, N', of 5.22 degrees. (The geodesic distance is the shortest distance between two points over an arc of a great circle in a sphere.) Multiplying N' by 111 km per degree, results in N being approximately 580 km. With this value one obtains the following relative extensions - N/A = 0.09 and M/A = 0.91 - which are closer to the expected values.

IN SEARCH OF THE SACRED SPRING

Since Father Samuel Fritz's explorations, in 1707, the source of the Marañón River was accepted as being the stream flowing from Lake Lauricocha. Meanwhile, Antonio Raimondi verified that the origin of the Marañón had to be rectified. While exploring the region, in 1861, he proved that the Nupe Stream should have been considered the natural extension of the Marañón, rather than the stream from Lake Lauricocha. The Nupe originates on the eastern side of the extensive glacier formed by the Cordillera Huayhuash, at the foot of snow-covered Yerupajá Mountain (6,617 m). Raimondi also verified that near the settlement of

Jivia, at the confluence of the stream from Lake Lauricocha, the Nupe carries the greatest quantity of water.³⁸

In the region of the Marañón's source (Fig. II-4), climbing along the trail that crosses the mountain range, and not far from the Queropalca settlement (*quero* is a vase that was used for libations in the ancient Peruvian religion and *palca* means bifurcation in Quechuan), there still exist ancient pre-Colombian stone bridges. Crossing them, the trail climbs to Paccha Pass (*paccha*, the name of a sacred vase generally made of ceramic and as the rhyton used for the worship of water by ancient Peruvians). Along this deep pass the ancient trail crosses the high mountain ranges. At the highest point, at an altitude of 4,500 m, near Viconga Lake, the traveler will see an impressive landscape. On one side, toward the north, is the Cordillera Huayhuash and, on the other, the Cordillera Raura. According to Raimondi:³⁹ *In this place one sees one of the most grandiose landscapes that human imagination can conceive: from all sides, covered by eternal snow, gigantic mountains tower to the sky. Here and there black rocks of trachyte protrude, altering the sterile profile of the solitary Andes. The permanently cloudy atmosphere appears to crown the high summits, blending itself with the white snow, confusing the earth with the sky.*

One need not be a poet, nor possess oracular powers to identify this place; one need only listen carefully to the murmur of the crystalline springs and perceive that from here emanates the song that Hesiod heard (*Theogony*, 807-810): *There, in proper order, lie the sources and the limits of black earth and of misty-wrapped Tartarus, of the barren sea, too, and of the starry sky, and they are grim and dank and loathed even by the gods.*

Occasionally a polemic arises over the location of the source of the Marañón. One of these is Augusto Cardich's. His observations that the origins of the Marañón could be in the Cordillera Raura⁴⁰ do not agree with Raimondi's. This mountain range has its highest peak on snow-covered Yarupá or Yarupac Mountain (5,685 m). It is here, according to Cardich, where the source of the Marañón originates: *Initiating its course as a trickle, which precipitates from a sheer rock. Afterwards the water flows beneath the glacier and then emerges again, better formed to continue its long course toward the ocean.*

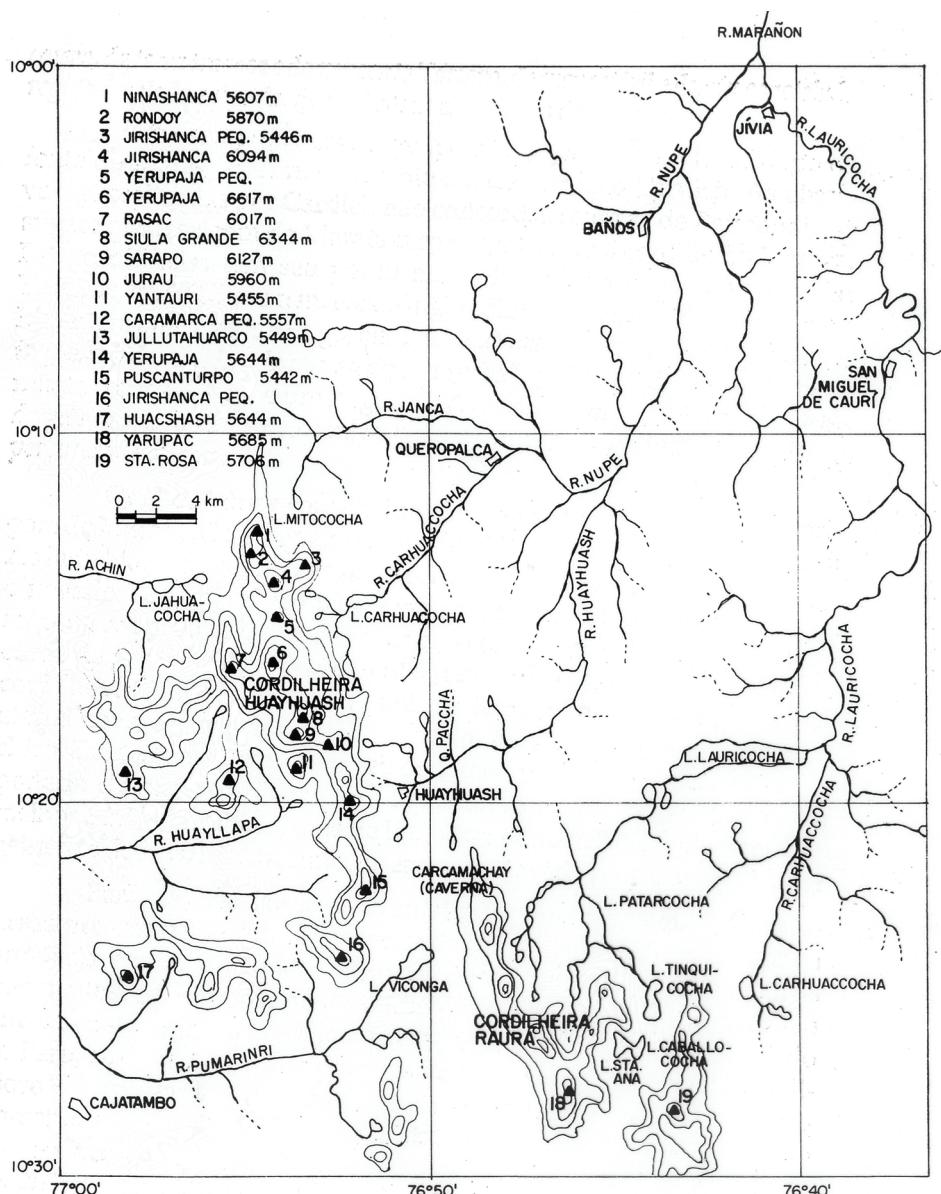


Figure II-4. Map of the Cordillera Huayhuash and Cordillera Raura (region A in Fig. II-2), the source of the Marañón River.

Which of the two mountain ranges, Cordillera Hayhuash or Raura, should be considered the origin of the Marañón? Again, let Iris, the goddess of the rainbow, resolve this question. On the north side of snowcapped Yerupajá Mountain lies, like a son, snowcapped Yerupajá Chico Mountain ("chico" means small in Spanish). Next to it is snow-clad Jirishanca Mountain (6,094 m) and, alongside it, the summit of Jirishanca Chico Mountain (5,446 m) Fig. II-4. On the extreme south of this mountain range, forming part of the same family of summits covered by perpetual snow, another one appears, also called Jirishanca Chico. Evidently, instead of Huayhuash, this mountain range could well be called Cordillera *Jirishana*, or mountains of *Jirish*, since *Shana* or *Sénkka* means summit in Quechuan.⁴¹ Was the messenger of the gods, Iris, metamorphosed here into high mountains?

In closing, one needs to emphasize that the etymology of *pororoca* as well as the name of Hera's messenger, Iris, found in an ancient Peruvian province, are not fortuitous coincidences, but rather authentic fragments of reality that gleam to this day, reflecting a captivating past of great achievements. This evidence, preserved in Peru, is due to the pertinacious spirit of a profoundly religious people who preserved the memory of their gods by impregnating their names in the rocks of the highest mountains. It is simple to verify that this is no mere coincidence. The toponym *Iris* or *Jirish* comes from the Quechuan dialect of Tampish, spoken in Cajatambo Province, located at the foot of the Jirishanca Mountains, northeast of Lima. In this dialect, *Iris* or *Jirish* means "hummingbird,"⁴² a bird noted for its striking iridescent plumage, a living minuscule representation of the rainbow.

In Greece, since remote times, the word "Iris" (Ιρις) denoted the luminous phenomenon of the dispersion of light. Both Homer (*Iliad*, 11, 27; 17, 547) and Aristotle (*Meteorology*, 3, 4 and 9) refer to the rainbow with the exact same word, Iris. Should one consider fleet-footed Iris, daughter of Thaumas, as a personification of a luminous phenomenon? In any case, whatever the mysterious significance of this name may be, the Andes, with its perpetually snowcapped summits - identified as the source of the Styx - to this day conserves the name of this messenger of the gods.

CHAPTER III

THE PALACE OF HADES

*Volgiti indietro e tien lo viso chiuso;
che, se il Gorgon si mostra e tu il
vedessi,
nulla sarebbe del tornar mai suso*
[Dante, *Inferno*, ix, 55-57]

*(Turn round and keep your eyes closed;
for, if the Gorgon appears and you
should see her,
there would never be any going back.)*

ATLAS MOUNTAIN AND THE PALACE OF NIGHT

After crossing the Pongo de Manseriche and climbing the Upper Marañón from the stifling hot rain forest, one reaches the Andean ranges. Here, the Marañón River flows tumultuously northward among steep mountains. On the left margin rises the Cordillera Blanca, named after its snow-covered mountains and glaciers. It is here that the Nevado Huascarán (6,746 m) towers over neighboring snowcapped peaks. Continuing due south one reaches the headwaters of the Marañón - and of the Amazon - in the Cordillera Huayhuash, dominated by majestic Nevado Yerupajá Mountain (6,617 m).

The extensive Cordillera Blanca, stretching southeast to the Cordillera Huayhuash, has the highest peaks in the Peruvian Andes. The icy waters descending from these ranges flow into the Atlantic and Pacific Oceans. This is one of the most spectacular regions in South America. According to Raimondi, in the southern part of Ancash Department, the snow-clad Cordillera is extremely impressive, and the traveler passing through this lofty region is constantly surrounded by massive snowcapped mountains, whose inaccessible peaks seem to be where earth and sky meet.

In this region, with the Greek *Theogony* in hand, and by literally following Hesiod's verses, one finds the "Palace of Night," the Gorgon's abode, in front of the high Atlas. In fact, at the foot of these mountains,

exactly as described in Hesiod's verses, we find a palace or, rather, the ruins of one, erected to the monstrous gods of antiquity. Ornamented with mythological monsters, this palace must have been a famous temple or oracle; the only one in the region that stands out for its impressive architecture, constructed entirely of stone. In the ruins of this palace, known as Chavín de Huantar, and in museum galleries in Lima, one can see the extraordinary works of art sculpted and engraved in stone, whereby one can easily identify monstrous entities such as the Gorgon, Cerberus and other children of Tartarus.

THE PALACE OF CHAVÍN

The ruins of the Palace of Chavín de Huantar are located in Ancash Department, at an altitude of 3,180 m, in the narrow Mosna Valley, surrounded by high snowcapped mountains, on the eastern watershed of the Cordillera Blanca. One reaches this site from Huaraz, the department capital, by way of the Southern Highway along beautiful Santa Valley, and then, from Catac, crossing the Cordillera Blanca (Fig. III-1).

Prior to the archaeological work initiated by Julio C. Tello, in 1919, the ruins were partially buried under a thick alluvial deposit, accumulated from the runoff of the torrential Huacheksa Stream, that descends from the snowy peaks of the Uruashraju (5,722 m) and Huantsán (6,395 m) mountains. The alluvial soil that covered and protected the ruins was suitable for farming, and eventually the inhabitants of the nearby village used the dressed stones of the palace to erect their houses.

The stone edifices unearthed by Tello's excavations exhibit a clear architectural unity. Though there is evidence of construction in stages, the layout and symmetry of the whole complex of edifices, stairways, plazas and subterranean canals, reveal great planning (Illus. 1-2). The architectural ornamentation consists mostly of ashlar masonry showing mythological representations carved in flat relief over granite, one of the hardest stones available (Illus. 5-6, 10-11). On the upper wall of the façades a series of monstrous heads were tenoned at regular intervals,

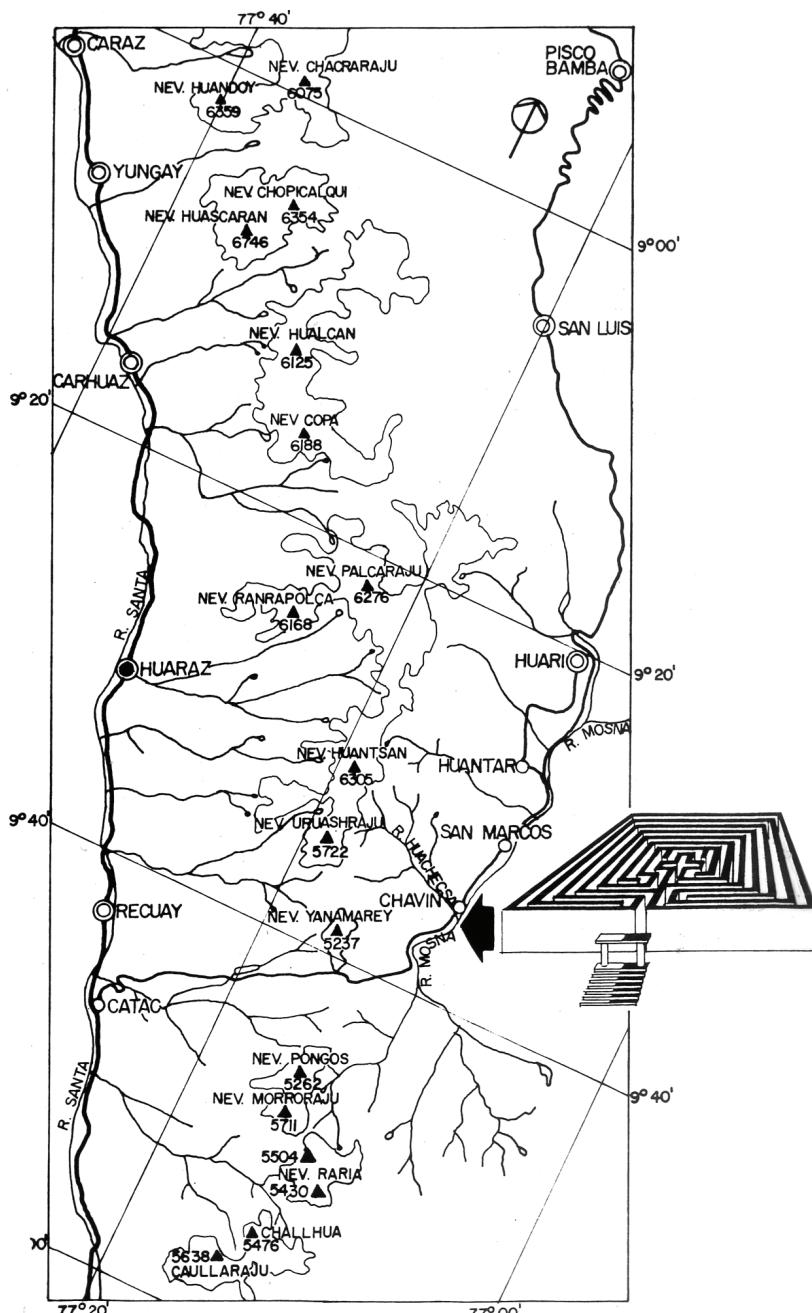


Figure III- 1. Map of Huascarán National Park with the world's highest tropical mountain (triangles indicating altitude in meters), where the ruins of the palace of Chavín de Huantar are located, indicated by the labyrinth.

which probably encircled the entire palace. These granite heads, some weighing a half-ton, were supported by a rectangular tenon carved on the back, giving the impression of being suspended high on the walls without any means of support (Illus. 4-9). Two perfectly cylindrical granite columns, carved with highly stylized mythological figures, flank the Black and White Portal on the eastern façade (Illus. 3). The iconography of Chavin Palace is impressive for the quality of its features and the originality of its design, revealing a creator of extraordinary architectural and artistic skills, rivaling the best works found in the Mycenae (Illus. 12) and Orcomenos grave steles, in Greece. If this palace had been unearthed there, no one would doubt the existence of Daedalus.

THE LABYRINTH

What surprises the visitor most is the apparent absence of an entrance to the edifice, as well as the total absence of halls and spacious rooms¹. As shown in Fig. III-2, the edifice, which extends more than 10,000 square meters and reaches a height of 15 m, has only narrow corridors, giving the impression of a labyrinth.

The labyrinth is formed by a series of corridors of rectangular sections, constructed of massive rock-filled stone walls. These corridors are distributed over various levels, above- and below-ground, where it is possible to walk around easily (Illus. 7). Other smaller galleries link the principal labyrinth with a subterranean network which, by its inclination and lateral curvature, indicates that it was designed to convey water. These galleries converge at a central aqueduct, that extends from the façade of the principal temple to the Mosna River, passing below the stairways and the main plaza. The central aqueduct is slightly inclined, and its section of approximately two square meters, indicates that it carried an appreciable flow of water. This work of hydraulic engineering, worthy of Daedalus, and for which specialists still have not found a satisfactory explanation, induces one to meditate on the apocalyptic gods represented in that edifice. This labyrinth was the starting point that led to a series of discoveries that became the basis of the present physical interpretation of myths.

THE GORGON

The architect of Chavin sculpted a terrible creature, which he placed in the middle of the labyrinth. To maintain the secret of the subterranean

mansion, a myth was spread, which perhaps not even its creator imagined would survive for such a long time. The poets sang of the deed of the hero who had challenged this abominable creature.

Now, dear reader, cover your eyes, for you will be taken to the Gorgon. If you look directly at her, you run the risk of being transformed into stone, like the images decorating the Palace of Chavín. Another artifice to protect oneself from this creature was discovered by archaeologists. They penetrated the sanctuary and, pretending not to recognize her, called her “Lanzón.”

In fact, at the intersection of two subterranean galleries, forming a cruciform chamber, in the middle of the labyrinth stands a 4.5-meter tall diorite pillar, upon which rests the principal deity of the temple (Fig. III-3). Due to the lance-like shape of the monolithic pillar, it was called “Lanzón.” The “Lanzón” was suspended from above like a gigantic knife ready to strike. It remained in that position, held firmly between two slabs of granite (or quartzite), forming part of the floor of the room above. While cleaning the galleries, in 1919, it was loosened from its original position. With that lamentable mishap, the pillar fell and lost its original alignment.

Curiously, the image of the terrible divinity, or rather, the Gorgon, was not represented as free to come and go as she liked. Like the Minotaur of Daedalus, the artist portrayed her chained to the middle of the labyrinth, with thick spiral cords. On the upper half she is held by the right arm, menacingly raised with the palm open. In the lower part, there are two laterally engraved cords, held doubly secure below the feet. Who kept her in that robust prison? What sacrifices was she offered to pacify her and to deserve her favors?

In the narrow room above, where once two large slabs of stone supported the “Lanzón,” one finds the sacrificial room; very narrow and of peculiar shape, measuring 1.8 m in height. In this minuscule cubicle the victim was placed, after crossing a span by means of a ladder or a portable bridge. The altar upon which the victim was sacrificed was not found though, from other sacrificial stones found in minor places of worship in

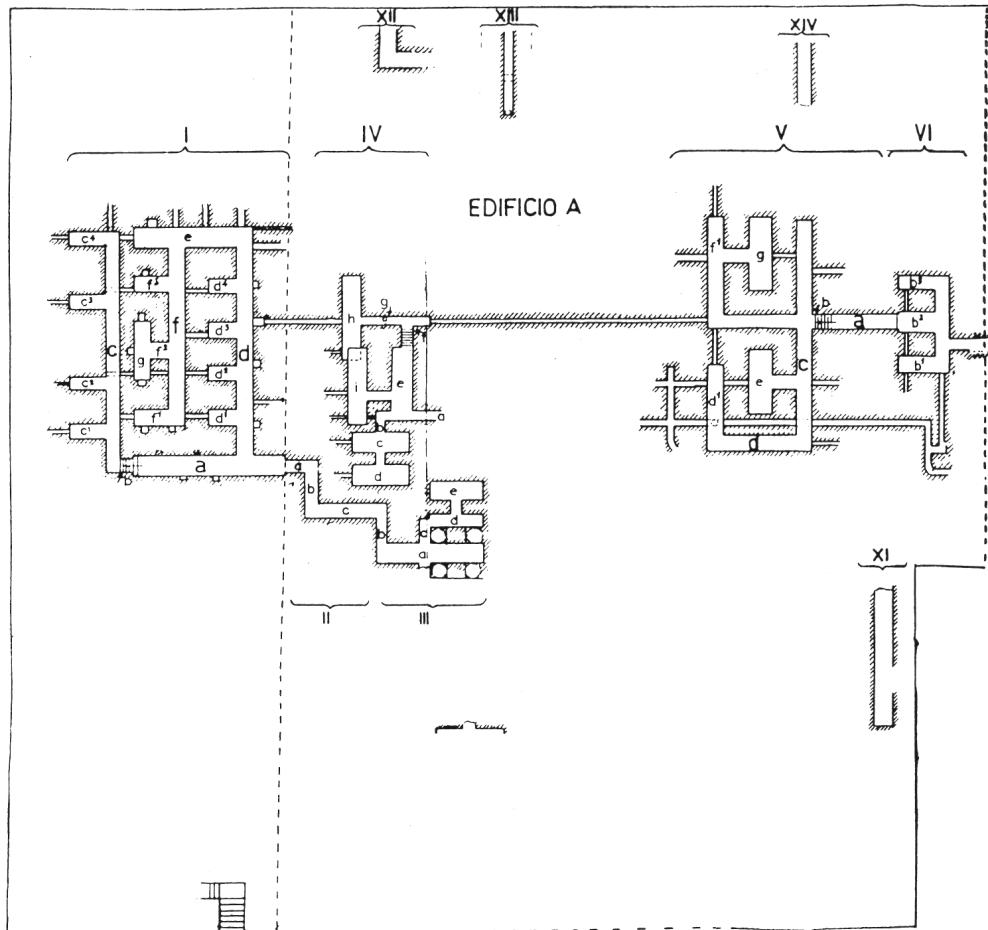
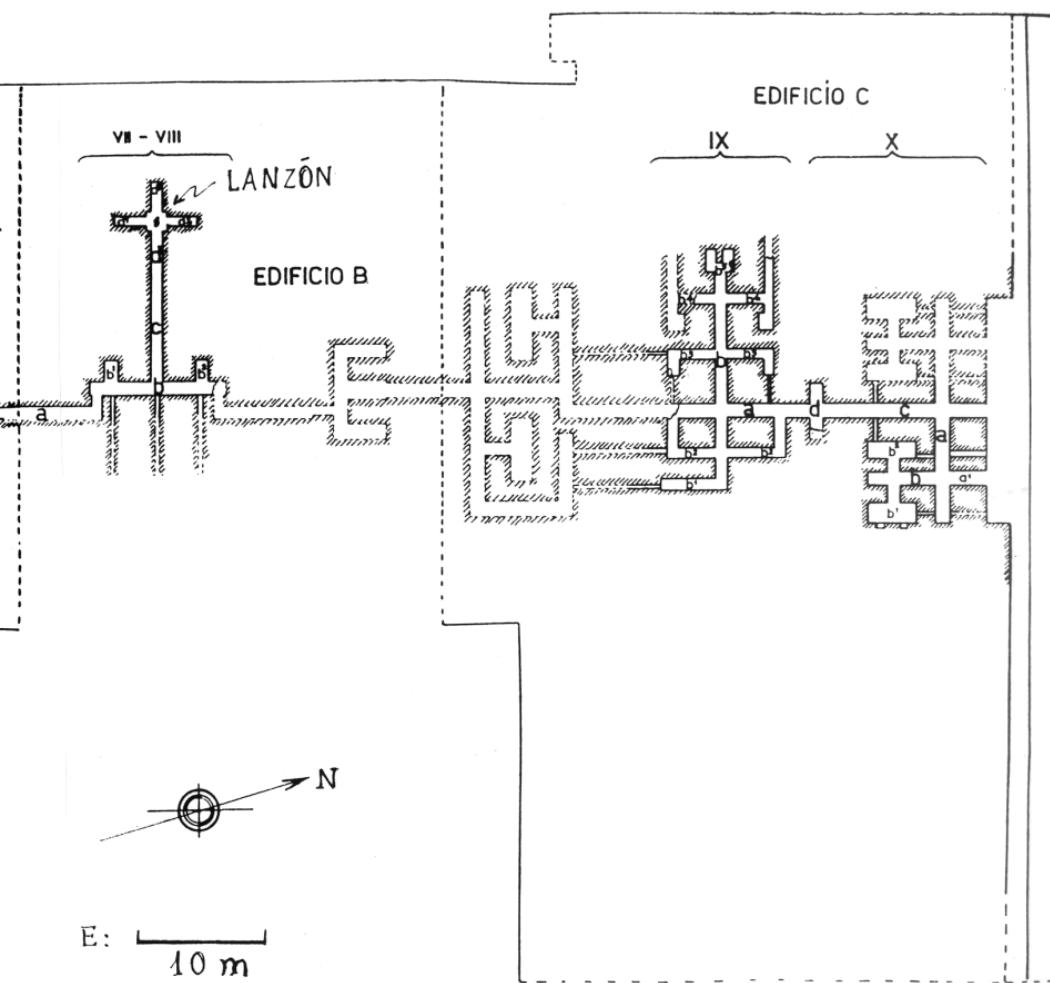


Figure III- 2. Plan of the labyrinthine galleries of Chavín Palace (according to J. C. Tello), with the principal edifice A, the oldest temple B, where the "Lanzón" is located, and edifice C, extensively destroyed.



the Andes, one can presume that the victim's blood ran through an orifice in the floor, dripping over the frightening image of the Gorgon.

Tello states that the victim's blood trickled down the front of the "Lanzón." On that side there are two deeply engraved parallel grooves in the rock which, according to the archaeologist, were used to convey the blood from the sacrificial room down to a circular depression, as if it were the third eye of the Gorgon. This depression is located in the middle of a cross engraved on top of the idol's head. The arrangement of the double grooves, states Tello, allowed the recently sacrificed victim's blood to go directly into the mouth of the great divinity, before spreading down the grooves of the stone idol.² Another archaeologist, Rebeca Carrion Cachot, believed that, besides blood, *chicha* (an alcoholic drink made from corn) was poured down, and that the "Lanzón" was the most ancient *paccha*, or rhyton, known in Peru.³

When, in January 1981, I faced the imposing stone pillar (Illus. 8), below the sacrificial room, I tried to imagine how horrible it must have been to see it covered with blood. If suffering and anguish could leave their marks on matter, that pillar would certainly contain all the lamentations of Hell. With that in mind, I extended my hand, closed my eyes and opened my soul. Upon touching it, absolutely nothing happened; I only felt the cold surface, like a polished tombstone, as if it had been polished over a long period of time by the hands of nameless priests, with blood, fat and *chicha*, as it was usually done in ancient Peruvian rituals. But, slowly I began to feel ill at ease. An overwhelming force entered my soul, inciting me to write without respite the results of my "journey."

THE CHAVIN DE HUANTAR CHRONOLOGY

The oldest historical reference to Chavin de Huantar is found in the chronicles of the soldier-historian Cieza de Leon (1518-1560), wherein he describes the ancient paths leading to these lost regions in the rugged mountains, some of which chiseled through rock, and mentions the locals' custom of extracting silver from the mines. He relates that the palace appears to be an enormous fortress, more than 140 paces in width and even more in length, and that there are figures of human heads everywhere, admirably sculpted in stone, and which tradition attributes to great antiquity, executed by men of high stature (as he states, by giants), living there prior to the then governing Incas.⁴



Figure III- 3. A development drawing of "Lanzón" showing South Face (A) and North Face (B). Notice the spiraled cords which hold the large image of the Gorgon by the hand and feet. A human-scale figure allows one to gauge its size.

Imbelloni, in 1926, was the first to call attention to the similarity of the “Lanzón” image to the Greek Gorgon. Comparing it with the Gorgon’s head at the sacred sanctuary of Syracuse (Sicily), 6th century B.C., one notices the remarkable resemblance of these images (Fig. III-4). Its analysis is interesting and deserves to be transcribed at length.⁵

I don't believe that it is necessary to emphasize the similarity between the curve of the eyelids, the eyes and the nose. The relief that represents the lips forms an “ellipsoid” of the same relative size, inclusively curving its extremities upwards, with surprising fidelity. However, the greatest effect is provoked by the spirals that represent the hair (transformed into serpents!) which in both compositions curl in the same direction, and their number is identical. In reality these facts arouse unexpected reactions in the mind of the observer.

This surprising, impartially evaluated evidence, would compel a competent researcher to delve deeply into the origins of the unquestionable resemblance of the images, investigating iconography and Greek mythology. But since the intention of Imbelloni was to demonstrate the impossibility of ancient contacts across the Atlantic, instead of following the logical path, he chose a dogmatic solution, stating: “To maintain an extremely strict conduct, the author does not state that it deals with the cultural dependence of Greece passed on to America.” And concludes: “We are at the extreme limit of what we concede to be convergence.” That is, the resemblance between the Gorgonian images was so great, that it stretched the accepted limits of belief that they were culturally independent results.

In Imbelloni’s time, there was no reliable method of determining the age of these archaeological monuments, and the hypothesis concerning the antiquity of the Peruvian civilization was wrong. The influential Americanist Philip Ainsworth Means, for example, in 1919, believed that in the 13th century B.C., South America was a wild and uninhabited continent.⁶ One is not concerned with the origin of mankind in South America (today, its presence can be confirmed as far back as 50,000 years ago). But one is certainly interested in the origin and evolution of the large pre-Colombian civilization of the continent (particularly, Peru), found in archaeological sites. Through radiocarbon dating, archaeologists know that the Chavin culture, in its initial or formative phase, existed in various regions of Peru, as far back 1,600 B.C.⁷ However, despite the importance of this culture, there are no absolute dates available to evaluate the age of Chavin Palace.

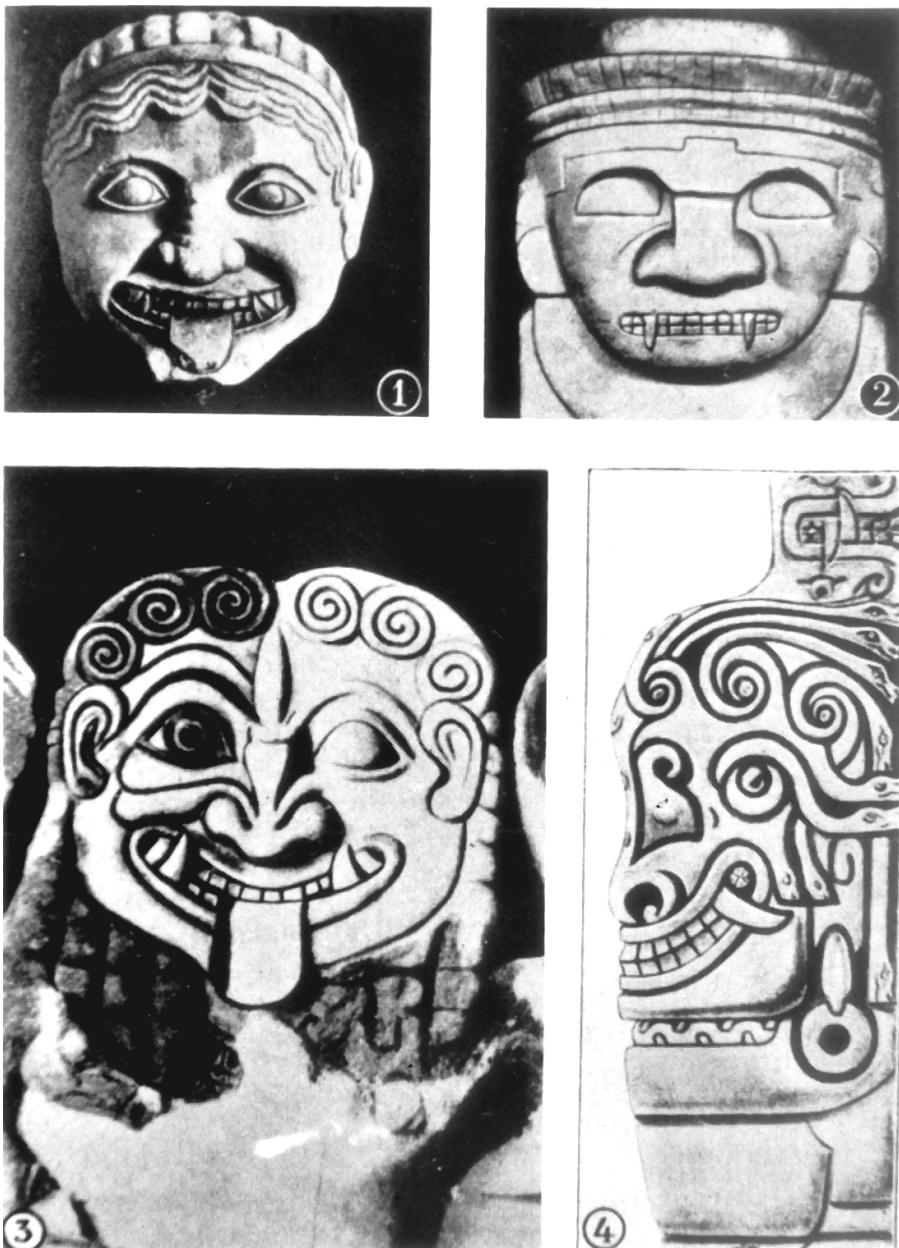


Figure III- 4. Gorgonian images from America and the Mediterranean
1) Athens, 2) Colombia, 3) Sicily (Italy) and 4) Peru.

What is most surprising is that in recent decades a considerable amount of soil was excavated from the front area of Chavín Palace. An excavation was carried out in 1966-67 by the archaeologist Luis G. Lumbreras; another was initiated in 1972, with the collaboration of the archaeologist Herman Amat and his assistant, Marino Gonzales.⁸ This last excavation was motivated by the tourist potential of the site, unearthing a circular plaza, 21 m in diameter, in front of the oldest temple, where the “Lanzón” stands. However, despite the enormous volume of soil removed, no stratigraphic results or dates were presented, that could determine the age of the plaza, or at least, the period of its abandonment. This represents a real catastrophe for scientific archaeology, comparable to setting a library on fire. The only data published corresponded to a charcoal sample found in one of the galleries of Chavín Palace, known as the Gallery of the Offerings, dating back to circa 780 B.C.⁹ The fact that a skull and many other human bone fragments along with other offerings¹⁰ were found in the same gallery, could indicate that, already at that time, the palace was completely abandoned. The galleries no longer served their original functions, merely being used as a burial site or a place to deposit ritual offerings.

Without convincing arguments, some archaeologists sustain that the northern section of Chavín's temple (considered the oldest), was built around 1,200-700 B.C.¹¹ Others point out that, during the Lumbreras excavations, in 1,967, several types of formative ceramics were found in the Chavín site.¹² Bennett also states that the ruins belonged to the first period of the Chavín culture.¹³ By gathering together these pieces of evidence one can tentatively estimate - until further studies are carried out by a more technically capable team - that the oldest section of the palace could have been built in the second millennium before Christ, probably around 1,300 B.C.

HUARI-VIRACOCHA, THE ANDEAN VERSION OF PERSEUS

Having identified the “Lanzón” as the oldest anthropomorphic representation of the Gorgon, and starting from the fact that it was the central deity of Chavín Palace, it is no surprise that a myth or legend regarding this important deity could have survived in the indigenous traditions of Peru.

In the Chavín region, formerly known as Conchucos, time had obliterated the significance of the stone idols and the palace, called

“huacas” and “house of the huacas,” respectively, by the natives. Nevertheless, some traditions were preserved, referring to “Huari” as a god and to the homonymous heroes called “huaris” or “guaris,” endowed with supernatural powers, similar to the deity. These traditions - generally considered ridiculous or the work of the devil - were often extracted from the natives, under force or torture, by the iconoclastic clergymen. Hence, the traditions of the Conchucos region and nearby provinces, gathered in the 17th century, are considerably fragmented and confused.

The testimony of the native Domingo Rimachi to a Catholic priest, in 1,656, states that “Huari” was bearded (contrary to the beardless Peruvian Indians), and that he had come to pacify the Indians, who were killing each other over land rights. He distributed land to each family, and taught them irrigation techniques. He also added that he had a “seat” of stone to “sit on,” and that he had arrived in the form of a great and powerful wind.¹⁴

Another tradition, recorded in 1,619, in Cajatambo Province, south of Conchucos, makes note of the god “Huari-Viracocha,” described as a bearded giant, who came from Lake Titicaca a long time ago. “Huari-Viracocha” was feared because wherever he went, he would transform humans into stone. This ancient tradition, quoted by the French researcher Pierre Duviols, is a priceless document because, in it, we find the Peruvian version of the myth of Perseus, or rather, a fragment of it, which the iconoclasts rescued unknowingly. This interesting mythological fragment states:¹⁵ “*The Indians from the province of Cajatambo had gathered with those of Conchucos to conspire against Huari. In order to ambush and to kill him, they deliberately invited him to a grand feast [at this point of the story the conspirators are called ‘huacas,’ the name the Indians of Conchucos gave to the stone heads of Chavín]. After the huacas had arranged everything as planned, the gathering took place; but to their misfortune they did not consider that Huari, being a sage, had foreseen the treacherous trap, and there and then he transformed them into stone. The house of Conchucos, where the huacas were petrified by Huari, was held in great veneration and given the name of House of the Huacas. Afterwards, the Huacas replied to the questions posed by the ‘kuracas’ (tribal chiefs), who came from many regions to seek advice.*” Through these indigenous traditions one can also deduce that the “House of the Huacas” was an important oracle.

Duviols, in publishing these important documents, did not realize they dealt with a legend parallel to the Perseus myth; neither did he

suspect that the “Lanzón” was the oldest anthropomorphic representation of the Gorgon, inferring that the “House of the Huacas,” where the conspirators were petrified by “Huari,” is the same edifice known today as Chavín de Huantar. That identification is based on the description of the iconoclastic priest, Vega Bazan, who mentions a very large subterranean temple, constructed of large stone blocks, with extensive labyrinths, where the god “Huari” was worshipped. According to Duviols, that description coincides perfectly with the temple of Chavín, because no other temple - or vestige of one - in ancient Conchucos Province fits Vega Bazan’s description, except Chavín de Huantar. Moreover, Duviols mentions the document by Vasques de Espinoza, who describes Conchucos Province without referring to any underground temple, except that of Chavín. In that document, Vasques de Espinoza describes the temple of Chavín de Huantar:¹⁶ “Near the village of Chavín there is a stone edifice, well constructed, of notable size, which was a Huaca. That edifice is one of the most famous shrines to the Indians, like Rome and Jerusalem is to the Christians. There the devil declared the oracles to the Indians, and to hear them, they came from all over Peru.”

After the archaeological works carried out at Chavín by J. C. Tello, in 1940, a series of monstrous heads was unearthed. Considering the power attributed to the Gorgon Medusa in transforming anyone into stone, these heads with bulging eyes which formerly decorated the outer walls of the temple, like trophy heads (Illus. 9), are petrified witnesses that allow one to identify Chavín with the abode of the Gorgons, cited in Hesiod’s *Theogony*.

CERBERUS, THE WATCHDOG OF HADES

Reading the following verses in the *Theogony*, one notes that the abode of the Gods of the Underworld, which one identifies with the Palace of Chavín, was not a silent place. Strange and powerful sounds echoed through its halls, protected by a guardian of the gates.

767 *There, too, stand the echoing halls of Hades,
whose sway is great, and of awesome Persephone.
A hideous and ruthless bough guards the place
skilled in an evil trick: wagging his tail
and wriggling his ears he fawns on those who enter,
but he does not let them out again;
instead, he lies in wait and devours those he catches*

774 *outside the gates of sovereign Hades and awesome Persephone.*

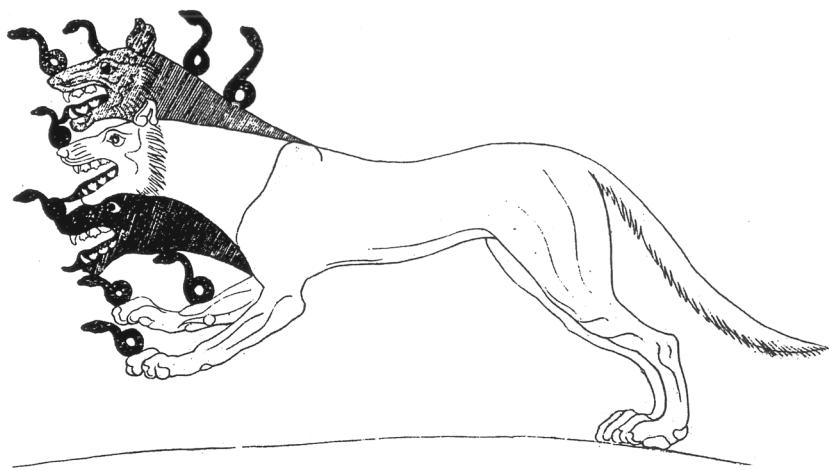


Figure III- 5. Greek representation of Cerberus.



Figure III- 6. Figures of Apollo, Athena, Heracles, Hermes and Cerberus on a Tyrrhenian amphora. Notice the serpent's head at the tip of Cerberus' tail.

As the plan of the Chavin Palace complex shows (Fig. III-2), adjoining the Old Temple (Building B), where the large image of the Gorgon stands, is the main temple (Building A). On its eastern facade lies the Black and White Portal. The large carved lintel spanning the cylindrical columns is comprised of two types of stone. The southern half is white granite, and the northern half - of which only a piece remains - is black limestone. Its name arises from the symmetric distribution of colors.¹⁷ The flight of steps leading to the portico was also constructed with two types of stone joined in the middle, in perfect symmetry with the portal. One half, next to the Gorgon's temple is black limestone, and the other half is white granite. This is the main temple of Chavin. Could it be the temple of the god "Huari"? It displays a notable portico, flanked by two perfectly cylindrical columns of hard granite. Engraved on the surface of these columns are mythological images of two "protective demons." Yet, despite being the main temple, no great image was found in it.

Could this be the feared House of Hades? Here, the absence of an image would be justified, seeing that in earlier documents Hades did not have a name, *per se*, but was only referred to as "the Unseen," (ΑἽδης), later known as Hades (Αΐδης) by phonetic changes.¹⁸ In that case, the temple of Persephone would be the Old Temple in which the large image of the Gorgon stands. This identification of Persephone with the Gorgon Medusa should not surprise anyone reasonably familiar with Greek mythology, since the name is related to Perseus, her killer: Persephone (Περσε-φονη) is the composite name of Perseus (Περσευς) and *phone* (φονη) - act or action of killing - and means "The one who was killed by Perseus."¹⁹

The resounding palace of powerful Hades was protected by a cunning animal, *the dreadful bough that protected his gates*. Greek mythology makes reference to a wide gate offering access to the "subterranean abode," its threshold protected by a terrible monster, the dog Cerberus. Hesiod quotes the monster in verses 311-312 of the *Theogony*:

*Cerberus, the fifty-headed dog of Hades, that mighty
and shameless eater of raw flesh, whose bark resounds like bronze.*

The number of heads attributed to the watchdog of the Underworld varies according to the author, sometimes having one, sometimes having fifty. Also, its Mediterranean representations are not uniform. At times it



Figure III- 7. Figure from a Greek vase showing Cerberus, surrounded by serpents similar to the images on the Chavin steles.

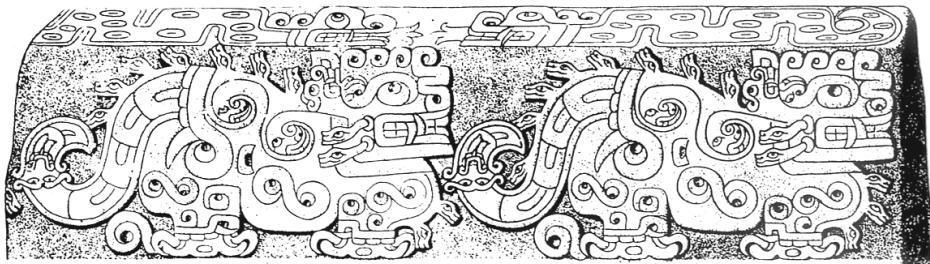


Figure III- 8. Cornice of the rear corner of Chavin Palace (see Illus. 4) with Cerberus-like images.

is a common dog, at others it has leonine paws, or appears distinctly with serpents around its body (Figs. 5-7). What was the appearance of that infernal creature where it actually guarded the entrance?

On the rear cornice of Chavin Palace are two engraved figures, which were incorrectly named “feathered felines” by some specialists. It is certainly not easy to classify mythological fauna, yet one needs considerable imagination to term clearly engraved serpents’ heads as feathers, as in Fig. III-8. Rather than “feathered felines,” one can call them mythological draconic images surrounded by serpents’ heads. Today, as in ancient times, it is difficult to determine the number of heads in that figure. Besides the principal head, there is another one at the tip of the tail, and two others sprouting from the jaw. One of these figures is surrounded by 9 serpents’ heads, while the other has 11.

A Greek vase of the 5th century B.C. (Fig. III-7), shows Cerberus surrounded by serpents’ heads, analogously distributed and alike, but lacking the superior style of the figures engraved on the steles of Chavin. The representation which is found on a Tyrrhenian amphora (Fig. III-6), shows the head of a serpent at the tip of the tail of the two-headed Cerberus, comparable to the figures of the Chavin cornice. Obviously, a cornice could not be confused with a threshold. Meanwhile, starting in 1,972, similar figures were discovered on the steles surrounding a circular plaza measuring 21 m in diameter, set in front of the Old Temple, forming the threshold of the central staircase that leads to the image of the Gorgon represented on the Lanzón (Illus. 10-11). Could the Chavin Palace threshold be related to the threshold of the Palace of Night mentioned by Hesiod?

Finally, comparing the steles of the aforementioned plaza to those of the first circle of tombs in Mycenae (Illus. 12), dating circa 1,500 B.C., one notes similarities in technique, the framing of the designs and the spiral motifs that decorate the central figures. Therefore, besides the Perseus myth, involving Mycenae and the Gorgon, Chavin also appears to relate to Mycenae in technique and iconographic art.

THE HOUSE OF LIFE AND DEATH

In Greek mythology there are many fantastic commentaries about the dog of Hades, but not all should be attributed to the unrestrained imagination of Greek poets, such as the origin of the medicinal plant aconite, which

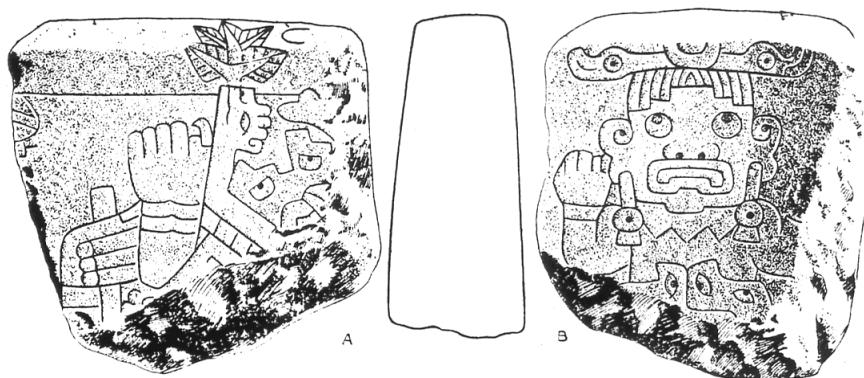


Figure III- 9. Mortar fragment found in Chavin with engraved figures.

The outer surface (A) represents an animal vomiting a (medicinal?) plant.



Figure III- 10. Cerberus-like stone mortar found at Chavin.

emerges from the bile in Cerberus' vomit.²⁰ The incredible art at Chavin is lavish and fantastic, such as the engraved design on a stone mortar fragment (Fig. III-9), found on the site by Bennett,²¹ and which was probably used for grinding medicinal plants. The fragment bears the design of a mythological animal vomiting an unknown plant. The use of mortars appears to have been common in Chavin. Tello dedicates five pages of his book to describing the various types of mortars found in the Chavin area and nearby sites. Some were unearthed intact, such as a massive diorite piece, 37 cm in length and 18.5 cm in height, sculpted in the shape of a mythological bird, the upper part hollowed out to form a rounded mortar, 16.5 cm in diameter. Another piece found at Chavin, and which is presently at the University Museum, in Philadelphia, Pennsylvania (Fig. III-10), represents a stone "feline," 33 cm in length and 16.5 cm in height, resting on four legs. The "feline" is analogous to the aforementioned Cerberus-like monsters, engraved on the Gorgon temple threshold, at Chavin. These objects, as well as other fragments used for the same purpose, were called "ceremonial mortars" by Tello.²² But for what ceremonies? Perhaps dedicated exclusively to a cult? Or for the preparation of offerings to the gods or to be consumed during festivities or burial ceremonies? To clarify this intriguing question one must consult Greek mythology again.

The most famous point for the preparation of drugs was the oracle of Dodona, of great antiquity, located in Epirus (some 20 km southwest of Ioannina). In this part of Greece the inhabitants conserve the glorious geographical deeds of the past, in the form of mythogeography, calling their own river Acheron, the largest river of Hades. Homer relates in the *Odyssey* (I, 260) that Odysseus had sailed to Epirus in search of φαρμαχον ανδροφονον (fatal poison), the poison used on arrow tips.

Another Greek myth, which seems to have elements similar to the oracle of Chavin, deals with the god of Medicine, Asclepius, son of the god of oracles, Apollo, and Coronis, daughter of Phlegyas. The symbol of Asclepius, as well as the caduceus of Hermes, are similar to the one crowning the Raimondi Stele, one of the principal steles unearthed at Chavin. It is said that Asclepius discovered the miraculous virtues of certain herbs on account of a serpent he injured, and which was cured by another one that carried a plant of miraculous properties in its gullet. Convincing that everything has a cause, including illness, he worked to

discover what was noxious to human health and what was able to reanimate mankind. He was worshipped in forests, medicinal springs and on high mountain tops. The temple of Asclepius, in Athens, had a hot spring. The god appeared in the dreams of the sick and gave them remedies for their illnesses.

Besides being an oracle, as stated in Peruvian traditions, Chavin was, above all, a place of worship to a powerful divinity, of which we know nothing, except its anthropomorphic representation on the diorite pillar, located in the center of the labyrinth, and to which, indubitably, human sacrifices were offered. Its temple was the house of death. However, other buildings of Chavin Palace were used to recover one's health, not only through the words of the oracle, but also by way of medicinal herbs, prepared and ground in stone mortars. The buildings - most probably used to treat the health of pilgrims visiting Chavin - must have been on the south side. One kilometer from this point, to the right of the modern road following the Mosna River, is a hot spring, which waters could easily have been piped to the temple. This spring, according to Raimondi, emits sulphurous waters at a temperature of 45 °C.²³ Here, again, we find the dual symmetry, so common in the architectural elements of Chavin: the Black and White Portal and the black and white of steps in front of it - which had to symbolize life and death. To the left of the black steps, on the side of the Old Temple where the Gorgon stands, was the house of death; to the right of the white steps, where medicinal water flows, was the house of life.

This dual symmetry, so conspicuous in Chavin, is clearly evident in a myth of Apollodorus of Athens, which tells how the goddess Athena granted the gift of life and death to Asclepius, giving him the blood from the Gorgon's veins: from the left side, to kill mankind, and from the right side, to save it.²⁴

THE IMAGE OF TYPHON ON THE RAIMONDI STELE

The most surprising mythological image unearthed at Chavin was not, as one would expect, the result of a systematic excavation. One day, in 1840, while cultivating his land, a simple farmer, Timoteo Espinosa, found a large, well-cut and polished rectangular stone slab, on which was a carved image of a fearful god surrounded by many serpents. He took it home to use as a table.²⁵

Twenty years later, Raimondi discovered the stele in the

courtyard of Espinosa's house, and through his persistence the government decided to bring it to Lima. Finally, in 1874, it was transported by the sergeant major José Manuel Marticorena, with great effort and using nearly two quintals (200 kg) of explosives, in one hundred detonations, to remove the rocks blocking the narrow paths in the Andes, between Chavín and Casma.

It appeared that the days of glory had returned to the god of serpents, but before returning to its pedestal and becoming an object of admiration, it had to undergo further tribulations. In Lima, it was placed over bricks in a rustic, black wooden frame, exposed to the elements, in the courtyard of the Exhibition Palace. The people called it "the Inca Stone." The more curious visitors admired the great number of serpents which the complicated design bore; yet, according to José Toribio Polo, no one gave it the least artistic or historical importance.²⁶ As if forty years of selfless work by Raimondi to Peru were in vain, two years after his death, in 1892, the stele was found completely abandoned near a weir, beside the Exhibition Palace, used as a plaything by children. Toribio Polo's complaints were a patriotic gesture to save the stele which otherwise would be sold to a foreign museum for a few thousand pounds sterling. After it was moved twice, from one museum to another, the irreparable happened. During a strong earthquake in Lima, on May 24, 1940, the stele fell down the steps of the Archaeology Museum, breaking into various pieces.²⁷

The stele, having survived three millennia; escaping undamaged from the hands of the peasants, who cooked and ate on it and which safely crossed the Cordillera of the Andes, was now broken into pieces in the hands of those responsible for its safety.

The "Raimondi Stele," as it is called in recognition of its discoverer, was restored and put on display in the National Museum of Anthropology and Archaeology in Lima. The 17-cm thick stone parallelepiped measures 1.95 m high, 76 cm wide at the bottom, and 73 cm at the top.²⁸ However, neither the rock's dimensions nor type are important; rather, it is the elaborate carving on one of its surfaces. The high-relief design, engraved by the *champlain* technique, 5 mm deep, reveals a masterpiece of rare artistic conception, and executed with perfect symmetry by a steady and sure hand. Its discoverer thought highly of it from the moment he examined it, stating:²⁹ "This stone is highly esteemed, for the intricate design, for the fine work and for the remarkable symmetry of such a

difficult design, that a finer artist could not have done more perfectly.” And continuing: “*This stone, which is presently found in a house in the village of Chavín, is perfectly flat and polished. The design represents a human-like figure, which has in both hands a type of scepter, formed by a bundle of serpents, and a large ornament above the head, composed of numerous serpents and large mouths with sharp fangs, similar to those on the image of the Lanzón. It seems that the individual who worked on it wanted to represent the Evil Power.*” In his notebooks, unpublished until 1943, Raimondi wrote: “*The top of the ornament ends in two twisted serpents, like the design on Mercury’s caduceus.*”³⁰

All those who afterwards delved into Chavín’s archaeology, at least once, tried to describe or interpret the engraved image on the stele. Some, like Tello’s, were so detailed that the whole perspective was lost.³¹ When reading scholars’ interpretations, rather than being enlightened, an air of doubt and gloom arises, with little hope of ever understanding its significance. Did José Toribio Polo correctly identify the image as the mythological god “Kon”? Is he correct in assuming that the large heads with menacing mouths are those of the American bison?³² Or, as Markham states,³³ is it the same entity that is represented on the monolithic “Gate of the Sun” doorway in Tiahuanaco (near Lake Titicaca, Bolivia)? Is it a celestial god, carrying the sun’s rays and lightning bolts in its hands, as suggested by Joyce?³⁴ Or is it a new mythological entity described by Uhle³⁵ as a “scolopendrid-tiger” (centipede-tiger), the monster that devours the sun and the moon during an eclipse? Could it be a “bird-man,” “tiger-like” or perhaps a “feathered feline,” as proffered by Kauffmann Doig?³⁶ Looking at these interpretations and a dozen others which space does not allow one to include, one could say that the Raimondi Stele acts like a magical mirror, reflecting what is in each person’s thoughts.

Since the turn of the century, Americanists have been consumed by the wish to decipher this Peruvian Sphinx. Who could discover its meaning merely by analyzing the elements represented in the image? One must acknowledge the impossibility of finding a satisfactory answer by this method. There are innumerable examples of fruitless attempts to interpret myths and legends based solely on the elements contained therein.

Without trying to interpret the meaning of the image, one’s immediate aim must simply be to verify if it is described in Greek

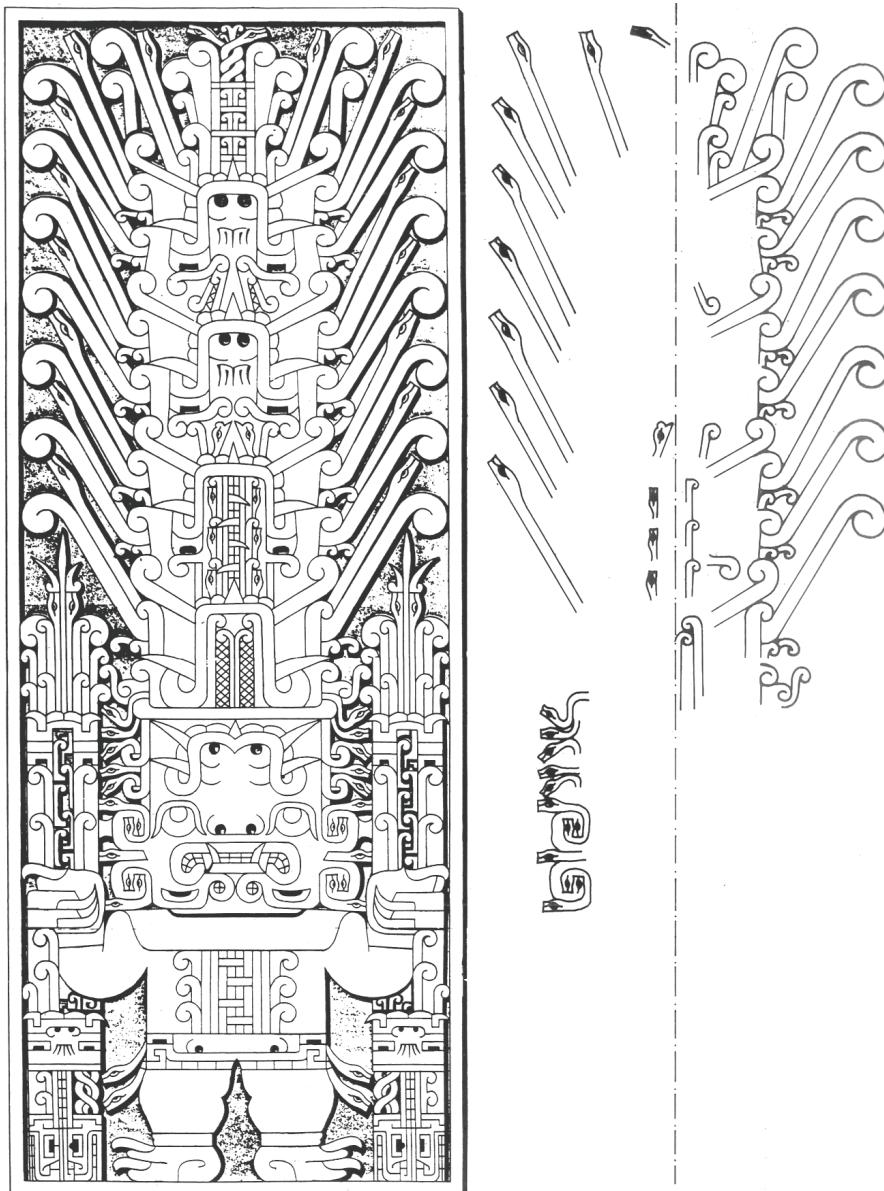


Figure III- 11. Design of the Raimondi Stele.

The drawing on the right (showing only half of the symmetrical elements) allows one to count 50 heads and 100 "arms" above the shoulders. These elements, together with the monstrous heads with darting tongues, allows one to identify it with Typhon.

mythology. One must analyze quantitatively the engraved elements on the top half of the monstrous creature on the Raimondi Stele (Fig. III-11): above the shoulders, one can count fifty serpents' heads and a hundred forms resembling tongues or feathers, which can also be interpreted as arms or legs. Uhle, for example, called them scolopendrid's legs (centipede's legs). Better than legs, they could be arms, since they are located above the shoulders.

Imitating the archaic style of the *Theogony*, the god represented on the stele can be described as follows: The legs and arms of that full-grown tridactyl were adapted for work requiring strength. With its tireless legs it carries over its shoulders several frightening dragons' heads with darting tongues, which eyes seem to glance menacingly. Fifty serpents' heads and a hundred menacing arms project themselves above its shoulders. It has an air of vigorous and invincible strength. The artist who carved this "son of the earth and sky," wanted to personify destructive forces, represented by fifty serpents' heads and a hundred arms, as well as the powerful weapons held in his hands.

Unlike the Gorgon and Cerberus, both of which are found represented in America as well as in the Mediterranean region, the elaborate image on the Raimondi Stele was exclusively and solely found in Peru. Once again, oracle-like, one finds the answer in Hesiod's *Theogony*, 147-153:

147 *Gaia and Ouranos had three other sons, so great
and mighty that their names are best left unspoken,
Kottos, Briareos, and Gyges, brazen sons all three.*

150 *From each one's shoulders a hundred invincible arms
sprang forth, and from each one's shoulders atop the sturdy trunk
there grew no fewer than fifty heads;*

153 *and there was matchless strength in their bulking frames.*

The poet, facing the stele, could not have described it better: "A hundred invincible arms bursting out of its shoulders, and from each one's shoulders atop the sturdy trunk there grew no fewer than fifty heads." No one was able to describe it as accurately as Hesiod's verses, depicting these Titans or giants, called Εκατογχειρες (Hecatoncheires), "which have a hundred arms." The coincidence with the god on the stele is quantitative as well.

This image with a hundred fists seems to conceal the key to many

other enigmas. What phenomenon arose between the earth and the sky which impressed men so vehemently as to have them create a god so powerful? Chavin Palace was erected to these gods and its fame reached beyond all borders. The Nahuas or Nahuatlacas, an ancient and cultured people who lived in Mexico prior to the Spanish conquest, had also preserved the tradition of a homonymous god, whom they called “Ehecatonatuuh,” meaning the “Sun’s Wind,” the fourth and final one, who caused great destruction to mankind.³⁷

Hesiod mentions a trinity of giants. What does it mean? Is it simply a mytho-iconographic description? In light of the present comparison, where we find an ancient Greek description of a deity coinciding with the image on the Raimondi Stele, we might be lead to interpret these Hecatoncheires as a myth describing three images at Chavin Palace. However, this hypothesis is not completely satisfactory, since the Hesiodic myth splits into a fourth, similar entity, Typhon or Typhoeus, the apocalyptic god, characterized by infernal “theophonia”³⁸ (Theogony, 820-835):

820 *When Zeus drove the Titans out of the sky
giant Gaia bore her youngest child, Typhoeus;
goaded by Aphrodite, she lay in love with Tartarus.
The arms of Typhoeus were made for deeds of might,
his legs never wearied, and on his shoulders were*

825 *a hundred snake heads, such as fierce dragons have,
and from them licking black tongues darted forth.
And the eyes on all the monstrous heads flashed
from under the brows and cast glances of burning fire;
from all the ghastly heads voices were heard,*

830 *weird voices of all kinds. Sometimes they uttered words
that the gods understood, and then again
they bellowed like bulls, proud and fierce
beyond restraint, or they roared like brazen-hearted lions
or - wondrous to hear - their voices sounded like a whelp’s bark,*

835 *or a strident hiss that echoed through the lofty mountains.*

Now, with Hesiod’s help, one can appreciate the monstrous heads which the Gorgonian deity carries upon its shoulders, the enormous dragons’ mouths, darting triangular tongues that seem to utter incomprehensible sounds that remain crystallized in stone. The Hesiodic description portrays Typhon as similar to the hundred-armed deity found on the Raimondi Stele.

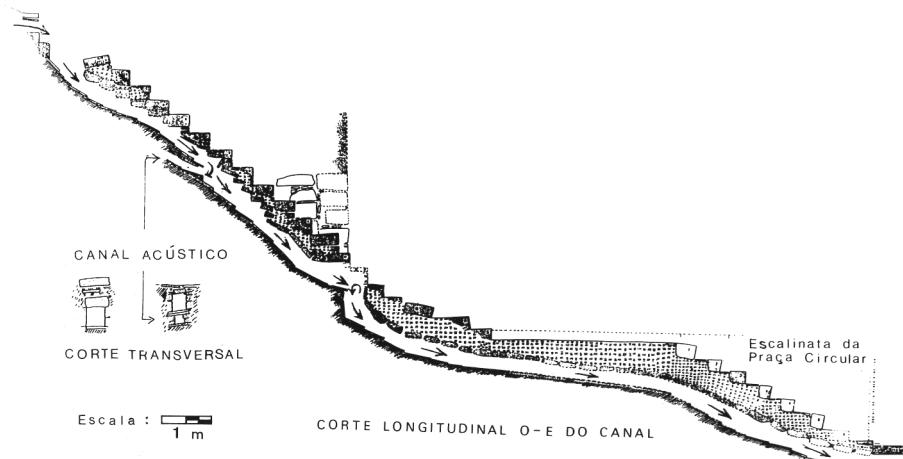


Figure III- 12. Longitudinal section of the channel located below the flight of steps in front of the oldest temple, where the “Lanzón” lies. The cross-section shows the acoustic duct, beneath the “tongue,” which probably connected this “excitator” to the labyrinth.

THE RESOUNDING PALACE OF THE SUBTERRANEAN GODS

I needed to return to the archaeological site of Chavín to confirm a hypothesis which, at first glance, seemed absurd, but which could be factual due to the persistent association of sounds attributed to the Gorgonian entities identified in Chavín's iconography. That hypothesis induced me to question the fundamental concepts of Peru's archaeology and proto-history. It began after my first visit in 1981, when I realized that the labyrinthine structure of Chavín Palace could have been constructed for acoustic purposes, so as to simulate the sound of the gods. These sounds (which shall be called “theophonia” from the Greek *theo* = god or the gods, and *phonia* = sound), along with the frightening appearance of the gods represented in Chavín Palace, must have caused a terrifying effect. How were powerful sounds produced within that huge structure? Who was the inventor of the formidable 150,000-m³ stone organ? An acoustic instrument weighing more than 200,000 tons, the largest ever built on earth!

To unravel that burning question I returned to Chavín in January 1, 1983, to search for any signs of sound-generating structures that could have produced and amplified them within the galleries of the palace. With the help of the custodian of the archaeological site, Gregorio Perea

Martinez, I was able to verify that, in fact, the audio-visual setting of the ancient palace, where the personifications of the Gorgon, Typhon, and Cerberus were identified, must have been extremely sophisticated. The worshippers of the Underworld were impressed not only by frightful images, but also by terrifying acoustic effects, that could have been produced inside the palace. Perea showed me the underground galleries, which were constructed to handle a considerable flow of water. I was able to walk inside the central duct, located below the main plaza. Its nearly 2-m² section could have handled the water from several of the palace's galleries, channeling it to the Mosna River. Today, the rear outline of the channel entrance, which carried the captured waters of the Wacheksa Stream, is unknown. The frequent landslides, and the construction of a road behind the palace ruins, destroyed all evidence of the channels. Fortunately, along the front of the temples, on the eastern side of the palace, one can still find some ducts, vertically orientated or sharply inclined, as shown in Fig. III-12. These ducts, which shall be termed "excitators," as can be deduced from a simple analysis of its internal structure, could have been excited by a stream of water, yielding thunderous sounds, similar to conventional organ tubes when excited by a stream of air (Fig. III-13).

Two of these "excitators," Illus. 13, are found in front of the main temple, and their water intakes can be seen by lifting a stone slab. On top is a lateral canalization, where the water entered, before falling into the vertical duct. The ducts are rectangular, and are formed by properly laid stone slabs. An important detail allows them to be characterized as acoustic excitators: on the lateral canalization, through which the stream of water entered, there is an overhanging stone slab (on the upper part of the vertical duct), forming a type of tongue, which forced the stream of water to form an arc, as shown in Fig. III-13 by points B and F. The isolated air in chamber C began to oscillate and the labyrinthine galleries of the palace, in communication with the "excitator" through the acoustic duct D, started to resonate, producing and reinforcing sound.

Just as the custodian of the site had informed me, other archaeologists had also reached the same conclusion; some even attempting to produce acoustic oscillations by emptying a barrel of water down the vertical duct. But, understandably, due to the small quantity of water and the inappropriate means to excite it, they were unable to produce any sound at all.

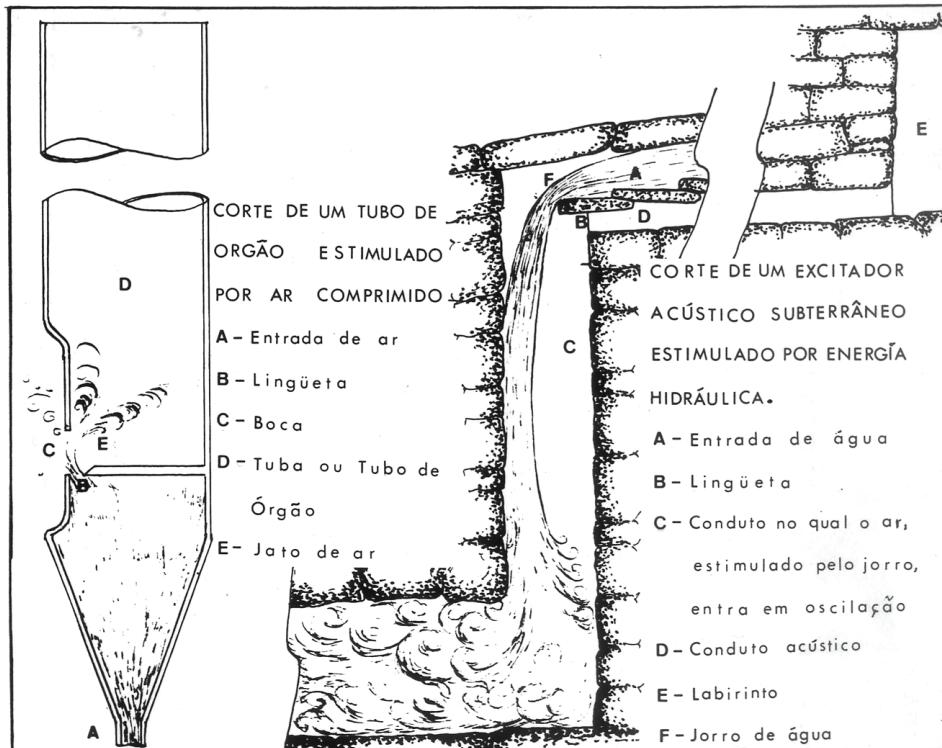


Figure III- 13. Structure of a hydraulic resonator.
 Left drawing shows the section of an organ pipe stimulated by compressed air
 A. Air inlet; B. Tongue; C. Mouth; D. Pipe or organ tube; E. Air jet.
 Right drawing shows the representation of a hypothetical subterranean acoustic "excitator" stimulated by hydraulic energy.
 A. Water intake; B. Tongue; C. Duct where the air oscillated, stimulated by falling water; D. Acoustic duct; E. Labyrinth; F. Flow of water.

It is highly probable that the fearsome, roaring animal-like sounds, described in the aforementioned verses (820-835), were related to those produced in Chavin Palace, imitating the “theophonia” of Typhon, the strident Gorgons, and the powerful bronze voice of Cerberus. Though the timid efforts of the archaeologists were unable to prove anything, this does not mean that more than 3,000 years ago the builders of the palace, who appear to have been far more capable than the excavators, were able to achieve hydroacoustic sounds, for which all evidence indicates is the reason for the construction of the labyrinth at Chavin Palace.

CHAPTER IV

CADMUS SLAYS THE SERPENT

A fragment of the Gilgamesh epic

*The most illustrious of heroes, Gilgamesh,
together with his friend, Enkidu,
undertakes
a dangerous expedition to the Cedar Forest,
where the monstrous Huwawa resides,
and to face his friend's vacillation,
he exhorts him with these words:
Who, my friend can scale heaven?
Only the gods live forever under the sun.
As for mankind, numbered are their days;
whatever they achieve is but the wind!
Even here thou art afraid of death.
What of thy heroic might?
Let me go then before thee,
let thy mouth call to me, "Advance, fear
not!"
Should I fall, I shall have made me a name:
"Gilgamesh," they will say, "against fierce
Huwawa has fallen!"*
[Fragment of the III tablet of the
old Babylonian version (c.1,500 B.C.)
"The Ancient Near East". Vol. 1
Ed. by James B. Pritchard
Princeton University Press]

INTRODUCTION

In September 1,969, an extensive article published in the Rio de Janeiro newspaper *O Globo*, revived a dormant topic in Brazil: the prehistoric visit of Phoenician navigators to the Brazilian coast.¹ The story quoted Professor Cyrus Gordon, of Massachusetts' Brandeis University, who believed in the possibility of these voyages. He visited Rio de Janeiro, interested in the Phoenician inscriptions which had been found in Brazil. Professor Gordon, a recognized Orientalist, had made important contributions to the study of the texts discovered in the royal library of Ugarit. These texts, inscribed on clay tablets, lay buried for more than

3,000 years, until their discovery by Claude Schaeffer, in 1929, at Ras Shamra, on the Syrian coast.²

Ancient Ugarit was a cosmopolitan city during the second millennium B.C. It was an important Mediterranean port controlled by the Canaanites, who maintained wide-ranging contacts with the civilized world of the day. The polyglot nature of the community is reflected through the various vocabularies used in the tablets. Scribes translated the Ugaritic vocabulary into Sumerian, Akkadian and Hurrian. Besides these languages, some Cypro-Minoan tablets, as well as Egyptian and Hittite hieroglyphics were discovered. The archaeological discoveries at Ugarit revealed the existence of close contact between the Canaanite, the Creto-Mycenaean and the Peloponnesian civilizations. Ugarit poetry is related to Homeric poetry and Hebrew poetic texts. In the Old Testament, according to Professor Gordon, the Hebrews never called their language “Hebrew” or “Israelite,” but quite correctly “the language of Canaan.”³

The Ugarit tablets hold priceless information, revealing fragments of the history, religion and customs of the long-dead Canaanite civilization, famous for its maritime skills and whose people were called Phoenicians, derived from the Greek name - Phoenix - brother of Cadmus who, in turn, is considered the founder of Thebes.

Soon after the first excavations, the levels at which dwellings were dug up revealed that the city had been repeatedly reduced to ruins. The few Egyptian objects found in the first or topmost layer - corresponding to the final destruction of Ugarit - belong to the Eighteenth and Nineteenth Dynasties, which conventional chronology places in the 14th-13th centuries B.C. Today, this date is contested by some revisionists⁴ who take into consideration the interesting synchronism between Egypt and Israel proposed by the author Immanuel Velikovsky.⁵ according to this chronology, the destruction of Ugarit occurred in the 9th century B.C., i.e., in Homer's time, contemporaneous to the Assyrian king, Shalmaneser III, and to Jehoshaphat, king of Judah. This chronology also fits in better with the results of radiocarbon dating. But the answers to these questions lie beyond the scope of this book.

In the *O Globo* article, Professor Gordon presented new data favoring an ancient hypothesis that the name “Brazil” is of Phoenician origin. His paleographic studies indicated that this name originated from the vocable *brz̩l*, used by the Canaanites to denote iron. Moreover, he firmly believed that in the land discovered by the Portuguese navigator

Pedro Álvares Cabral, in 1500, there was archaeological evidence of these transoceanic voyages, on ancient lapidary inscriptions. Perhaps with that newspaper feature Gordon hoped to motivate Brazilian specialists, in order to exchange information. Unfortunately, this did not happen. On the contrary, some days later, Professor Pedro Calmon, the then president of the Historical and Geographical Institute of Brazil, published a reply wherein he contested the affirmations made by the illustrious visitor, stating that the name “Brazil” is of German origin.⁶ In his opinion, the inscriptions found in Brazil, and attributed to Phoenician navigators by the archaeologist Ladislau Netto (director of the Archaeological Museum of Rio de Janeiro, in 1872), were no more than simple pranks. In fact, the illustrious Orientalist narrowly escaped being called an ass since, according to Professor Calmon, “the truth of such matters already appears in children’s textbooks.”⁷

Professor Calmon’s reply was consistent with the established academic consensus that any pre-Colombian voyages across the Atlantic never happened. Despite the opinions of these scholars, there were others in Brazil who believed in the possibility of such voyages, and sought evidence to support their beliefs. Among them was the historiographer Francisco Adolfo de Varnhagen, Viscount of Porto Seguro (1816-1878), the aforementioned Ladislau Netto, and the epigraphist and student of Brazilian prehistory, Bernardo de Azevedo da Silva Ramos (1858-1931). The latter not only believed that ancient Phoenician and Greek navigators of the Mediterranean had landed on the Brazilian coast but, like Champolion’s decoding of Egyptian hieroglyphics, claimed to have deciphered all the messages the navigators had left on the *itacoatiaras*, the Tupi name for these ancient Brazilian lapidary inscriptions. Even though his enormous two-volume work of prehistoric Brazilian paleography does not fit in with modern scientific methodology, one must recognize his efforts in compiling hundreds of drawings found on the *itacoatiaras*, where it is often possible to recognize archaic Semitic and proto-Greek characters⁸ (Fig. IV-1).

The debate between Gordon and Calmon had once again confronted two opposing views: that of the diffusionists who believe the culture of the New World could have derived from the Old World, and that of the isolationists, who believe that the Americas, surrounded by extensive oceans, developed an independent culture. At the same time, a scientist of great imagination and energy, Dr. Thor Heyerdahl, pondering that the truth lay between these two extremes, undertook a nautical

adventure to demonstrate the possibility of navigating across the Atlantic Ocean, on a primitive papyrus craft, similar to those constructed by the ancient Egyptians. Departing on May 25, 1969, from the coast of Morocco in a vessel called Ra I, and carried by the winds and ocean currents, he sailed 2,662 nautical miles in 55 days, arriving close to the South American coast, 600 miles from Barbados. He repeated the adventure on the Ra II and, after navigating 57 days and traversing 3,270 nautical miles, reached Barbados, on July 12, 1970.^{9, 10} These feats demonstrated that, during proto-historical times, America was far from being an inaccessible continent, as maintained by the isolationists. Heyerdahl demonstrated that with the prevailing westerly ocean currents and winds, this type of craft could reach the Americas a short two-months' sail from the African coast and, even if a primitive papyrus vessel did not have a rudder, it would inexorably drift in the same direction, i.e., toward South America.

STELLAR MYTHS - KEEPERS OF DEEDS

The equinoctial axis is an imaginary line that projects two equinoctial points in the sky, resulting from the intersection of the ecliptic (plane of the apparent path of the sun among the stars) and the celestial equator (equatorial plane, perpendicular to the earth's axis). The equinoctial axis slides slowly over the "houses" of the zodiac, due to the precession of the earth's axis, over a cycle of 25,920 years. This phenomenon is called the Precession of the Equinoxes and appears as a slow drift of the equinoctial points among the zodiac, following the sequence Taurus, Aries, Pisces, etc., and taking 2,160 years to pass completely from "house" to "house."

The fundamental reason why we have seasons is the obliqueness of the ecliptic, which forms an angle of about 23.5° to the earth's axis.

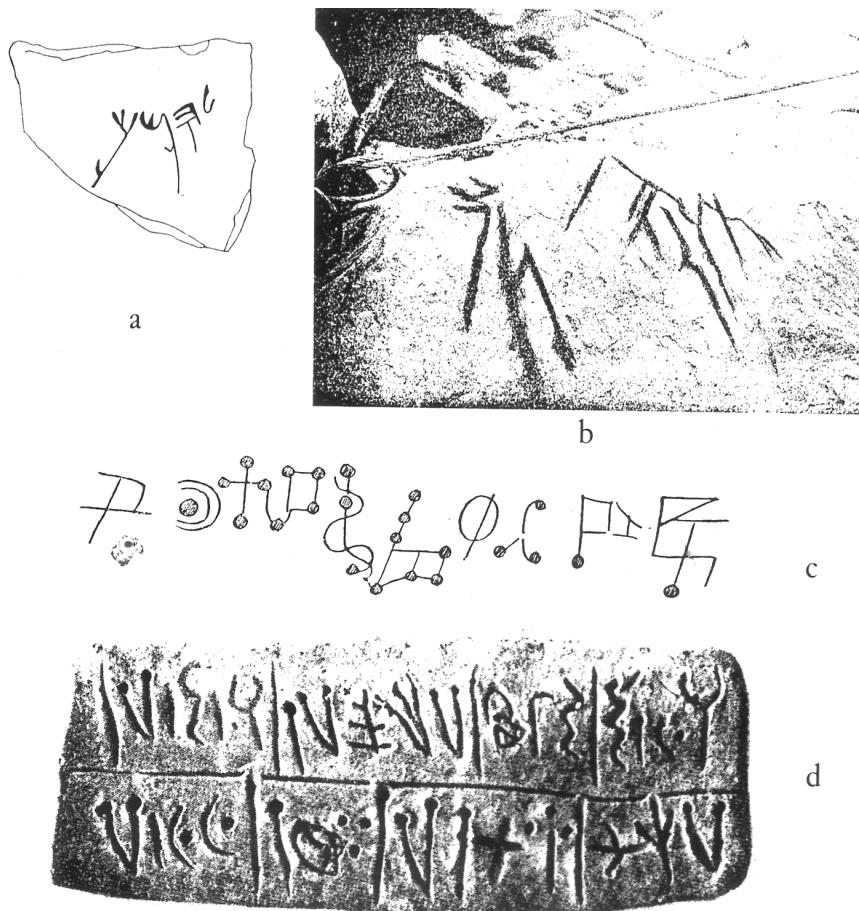


Figure IV- 1. The figuration of thought.

Comparison of Semitic inscriptions (a, d) with symbols engraved on Brazilian *itacoatiaras* (b, c)

- Fragment with inscription found in Israel, at Tell-el-Hesy. Note its similarity to the elements in Illustration (b).
- Rock inscription on the banks of the Amazon River, in Itacoatiara (near Manaus).
- Brazilian inscription found in Currães Velhos, on the boundary of Brejo da Cruz, Patu District, Rio Grande do Norte state. The inscription presents symbols with points and traces similar to the Semitic tablet (d).
- Tablet with proto-Sinaitic inscriptions found in the excavations of Deir Alla, Jordan.

a and d: Driver, G. R., *Semitic Writing*, Oxford University Press, Oxford, 1976.

b and c: Ramos, Bernardo A. S., *Inscrições e Tradições da América Pré-Histórica* (vol. I and II), Rio de Janeiro, 1930 and 1939.

The equinox, meaning equal day and night, occurs twice yearly, when the sun crosses the celestial equator, around March 21 (the vernal equinox, when the sun crosses into the northern celestial hemisphere, starting the northern spring) and around September 22 (the autumnal equinox, when it crosses into the southern celestial hemisphere, starting the northern autumn).

Thousands of years ago the annual march of the constellations was utilized as a practical calendar to regulate the planting and harvesting of crops. Once man undertook long voyages he had to depend on the seasons for his survival and, naturally, he also began to observe the regions of the sky where the sun appeared to rest on a particular constellation. The sun's position in regard to the constellation that rose in the east, just before dawn at the vernal equinox, was a very important "pointer" that indicated the "Age" of the precessional cycle.

It is most likely that the concept of constellations was developed during the pre-literal age, when the proto-historical astronomer had to create a method of establishing his astronomical observations, so as to correlate the positions of the stars with the seasons of the year. Thus, the group of stars upon which the sun appeared to rest during the vernal equinoxes between 4,000 B.C. and 2,000 B.C. was called the Taurus constellation, because of its resemblance to a pair of horns pointing upwards. It was the "Age of Taurus." The precession caused the vernal equinox to slide toward the Pleiades, one of mythology's most important star groups. Around 1,300 B.C., the vernal equinox, in its continuous slide over the Aries constellation, occurred over the Pleiades, and started to cross in front of the Perseus constellation - high over the northern horizon - represented in the sky by the severed head of the Gorgon.

Chavín de Huantar, identified as the mythical palace of the Gorgon (who, according to Greek myth, was defeated by Perseus), was constructed around this period. Therefore, one should not be amazed to find the complex somehow linked to the myth of Perseus and the Gorgon's head, considering that, in Peruvian mythology, Huari or Wari (the principal deity worshipped in Chavín de Huantar) is intimately related with the Pleiades.

Present-day investigations into the myths, as revealed in *Hamlet's*

Mill^{11a} and the surprising star correlation found on the pyramids and the Sphinx,^{11b, 11c} allow one to deduce that the precession of the equinoxes was already known to astronomers prior to Hipparchus. According to Reiche,¹¹ Plato and probably Eudoxus had information on the phenomenon through other sources rather than their own personal observations; he also presumes that the knowledge came from Egyptian “myths,” like the one cited by Plato (*Timaeus*, 22; *Critias*, 112a).

The myth of Cadmus’ contest against the dragon, as well as the boreal constellations which represent the contest between Heracles and Draco, can be classified as myths related to memorable events on earth assigned to constellations.

CADMUS SLAYS THE SERPENT

Agenor, king of Tyre, had a beautiful daughter, Europa, whom Zeus loved. This Phoenician princess was the mother of Minos, the mythological king of Crete, and of Rhadamanthus, who some say was the judge of the dead in Hades, while others place him in the Islands of the Blessed or the Elysian Fields.

The legend that links the Cretans and Phoenicians to Hades, relates that Zeus, in the form of a magnificent white bull, had abducted the daughter of Agenor, carrying her to Crete on his back. Cadmus, sent to search for his sister Europa, was forced to traverse the world until he found her.

Told by an oracle to follow the route of the sun, Cadmus discovers an immense serpent, against which he wages a victorious battle. He sows its teeth, from which emerge armed warriors, who fight each other to the death. With the five remaining survivors, he finds a town as ordered by the oracle.

The battle of Cadmus against the serpent is mentioned by Euripides (*Phoenissae*, verses 638-675), four hundred years before it was narrated by Ovid. Seneca also mentions it in verses 709-732 of *Oedipus*. However, the most detailed version of this Theban myth is narrated by Ovid, in *Metamorphoses*, Book III, verses 1-130.¹²

1 *The god had already laid aside the deceitful guise of a bull,
and admitted who he was and arrived at the Dictaeon countryside,
while her father, in his ignorance, was ordering Cadmus to seek out*

his ravished daughter, adding that he would punish him with exile if he did not

5 find her, being by that same token dutiful and wicked.

Agenor's son wandered throughout the world, a fugitive (for who could discover Jove's thefts?), and avoided both his native land and his father's anger, and, as a suppliant, consulted Phoebus' oracle to find out what land he ought to dwell in.

10 "You will be met," Phoebus said, "in the lonely fields by a cow which has never endured the yoke and has been exempt from the curved plow.

Pick your way, with her to lead, and where she rests upon the grass see that you establish city walls, and call them Boeotian."

15 Cadmus had scarcely made good his descent from the Castalian care, when he saw, coming slowly, an unintended heifer that bore no mark of servitude upon her neck.

He followed after with a deliberate tread, keeping to her tracks and silently worshipping Phoebus, his journey's guide.

By now he had already passed Cephisus' shallows and the fields of Panope:

20 the cow stopped and lifted her lovely forehead with its tall horns towards the sky and, disturbing the air with her mooing as she looked back to her companions following on behind, she sank down, lowering her side onto the soft grass.

Cadmus gave thanks and planted kisses on this alien

25 land and greeted the unfamiliar fields and mountains.

He was about to sacrifice to Jupiter: he ordered his attendants to go and get water for libations from a running spring.

An ancient wood stood there, defiled by no ax, and in its midst a grotto, thick with twigs and branches,

30 making a low arch with close-fitting stones,

a prolific source of water. Concealed there in the cave was the snake of Mars, distinguished by its golden crest; its eyes gleamed with fire, all its body swelled with venom, its three tongues flickered and its teeth stood in triple ranks.

35 When the descendants of the Tyriann race had reached

the grove with their unpropitious step, and the pitcher they let down into the water had made a sound, the blue-green serpent raised its head from the long cave and gave out a horrible hissing.

The pitchers slipped from their hands, the blood left

40 their bodies and sudden shaking seized their stunned limbs.

The snake twisted its scaly coils in writhing knots and, with a spring, bent itself into immeasurable loops,

then raised up more than half its length into the air
and looked down on the whole copse with a body as large as,
45 were you to see it all, as the one that separates the twin Bears.
Without delay, the Phoenicians, whether they were preparing arms
or flight, or whether fear itself was keeping them from either,
were brought up short: some were killed by its bite, others by a drawn-out
crushing, others by the corrupting exhalation of its deadly venom.
50 The sun, now at its highest, had made the shadows very small:
Agenor's son was wondering what the delay was with his companions
and he went to track them down. His shield was a skin
stripped from a lion, his weaponry a lance with a tip shining iron,
a javelin, and a spirit too surpassing any weaponry.
55 As he entered the copse and saw the slain bodies
and, on top, their victorious enemy with vast body
licking their bitter wounds with its bloody tongue,
"Either I shall be an avenger of your death, most faithful
bodies," he said, "or a companion." As he spoke, he picked up in his
right hand
60 a massive stone and sent the great thing off with great exertion.
The blow would have moved high city walls
with lofty towers: the serpent remained uninjured,
and was protected by its scales as if by a breastplate, for the hardness
of its hide repulsed the mighty blows from its skin.
65 But with that hardness it could not defeat the javelin too,
which lodged in the middle of its stiffly curving spine
and stayed there, while the whole iron tip sank down into its guts.
The snake, maddened with pain, twisted its head round onto its back,
inspected its injuries and bit into the spear lodged there
70 and, even when with much force it had loosened it on every side,
it could hardly wrench it from its back; even so, the iron tip stuck in its
bones.
Then indeed, when this fresh grievance had been added to its
usual anger, its throat swelled up with full veins,
and a whitish foam flowed round its noxious jaws;
75 its scales scraped noisily on the earth, and black breath
came from its Stygian mouth to infect the corrupted air.
The snake would at one point curl up with its coils making a vast
circle, then it would stand up straighter than a length of planking,
or be carried forward in a mighty rush, like a stream swollen
80 by rainstorms, and with its breast push aside the woods standing in its
way.
Agenor's son withdrew a little and absorbed the onrush

*with his lion skin, and slowed the jaw's assaults
 by thrusting out his spear; it raged and inflicted vain
 injuries on the hard iron by pressing its teeth against the point.*

85 *By now the blood had begun to flow from its venom-bearing
 palate and had bespattered and stained the green grass;
 but its injury was slight, for it was retreating from the blow
 and bringing its hurt neck back and, by withdrawing, keeping
 the stroke from going home and letting it go no further,*
 90 *till Agenor's son, following through, pressed in the iron tip
 that he had hurled against its throat, until an oak blocked its
 retreat and its neck and the trunk were pierced together.
 The weight of the serpent bent the tree which groaned out,
 for its trunk was being scourged by the last part of the tail.*

95 *While the victor was gazing at the size of his vanquished enemy,
 a voice was suddenly heard (it was not easy to know
 from where, but it was heard): "Why, son of Agenor, are you looking at
 the serpent you destroyed? You too will be a serpent to be looked at."
 For a long time he was fearful and lost his color together with*
 100 *his presence of mind, and his hair began to stand up straight with
 chilling fright;
 but look, his patroness had glided down through the upper air,
 Pallas was there telling him to turn the earth over and plant
 the viper's teeth, from which his people was to grow.
 He obeyed and, as he drove his plow and exposed a furrow,*
 105 *he scattered the teeth, the seeds of mortals, as bidden, on the ground.
 And then (it is beyond belief) the plowed field began to be disturbed;
 first to appear from the furrows was a spear tip,
 soon there were head-pieces with dyed plumes nodding,
 there soon emerged shoulders and a breast and arms loaded*
 110 *with weapons, and a crop of shield-bearing men began to grow.
 Even so, when the curtains are brought in a theater on a feast day,
 figures rise, showing their faces first,
 and gradually the rest of them, and they are drawn up in a smooth glide
 till fully displayed with their feet set on the bottom edge.*

115 *Cadmus was terrified by this new enemy and was preparing to take up
 his arms;
 "Don't take up," cried out one of the people created
 by the earth, "and do not plant yourself in our civil war."
 And with that, he struck one of his earth-born brothers
 with his firm sword at close range; and fell himself to a javelin from long
 range.*

120 *And that one too who had sent him to his death did live longer*

*than him, but expired on the breath he had just taken in;
and the whole throng raged in the same fashion, as the sudden
brothers fell in their own war from mutual injuries.
And now these young men, whose lot had been so brief a span of life,
125 were striking their blood-stained mother on her warm breast,
and there were five surviving, of whom one was Echion.
He, at Tritonis' behest, threw down his weapons to the ground
and both sought and gave a pledge of peace with his brothers.
The Sidonian exile took them as companions in his task
130 of establishing a city, as ordered by the oracle of Phoebus.*

The real significance of this myth was never understood. Diodorus the Sicilian rationalized that Cadmus' battle against the serpent was the saga of the founding of Thebes.^{13, 14} One should not be deluded by the myth's few concrete geographical details. These places merely mean that the hero or his descendants had settled on those lands, conserving their heroic deeds. Modern mythographers, however, were not that far off in supporting Pausanias' and Diodorus' versions, including their claims of having discovered that the reptile Cadmus had killed was a horned viper, an Egyptian viper having two scaly horn-like prominences on its back.¹⁵

The Jungians, like their master, believed that the serpent represents the taboo of incest. To them the dragon and the serpent are symbolic representations of anguish arising from the consequences of disobeying the taboo.¹⁶

It would be foolish to think that the Cadmus myth originated from the mere killing of a serpent or from a hidden incestuous impulse. Certainly, the serpent can symbolize an event or a historical fact, yet it was of such extreme importance that it became a stellar allegory and was represented as a constellation.

GEOGRAPHIC INTERPRETATION OF THE CADMUS MYTH

The legendary battle of Cadmus against the serpent can be compared to a slightly out-of-focus image, where the capricious play of light and shadow creates such bizarre configurations that not even the greatest exercise of the imagination could make out its true meaning. When, after successive attempts, one can "focus" the reality that originated this myth, the previously unrecognizable image loses its ambiguousness, and finally reveals its significance.

If the serpent Cadmus fought is not a reptile, then, what is hidden behind the allegory? Is it a river? Are there other battles against rivers in mythological literature? Not only do they exist, but this poorly understood allegory brought criticism to Homer: Philostratus reproached him for the implausible battle of Achilles against the river Scamander, accusing Homer of being an impostor.¹⁷

Another memorable battle was that of Heracles against Achelous. This river quoted in Book 21 of the *Iliad*, could not necessarily refer to the largest river in Greece, as generally presumed, but to a big river, comparable to the ocean. Pausanias quotes Achelous as the judge of all rivers.¹⁸ Where could the “greatest of rivers,” the “Father of Waters” be located?

An echo of the battle between Oceanus and Heracles can be noted in a story, where Oceanus agitates the solar embarkation transporting Heracles to the Hesperides, ceasing to do so when the hero threatens it with his spear.¹⁹ The Achelous River was represented in many forms; according to Sophocles, it adopted the forms of a bull, a dragon and a man with the head of a bull.²⁰ Fig. IV-2 shows Heracles in battle against Achelous. In Aetolia, on the Greek mainland, according to Lucian, Heracles’ battle against the river was represented by a dance.²¹

Another mythological creature that is mistaken for the monster defeated by Cadmus is the Hydra of Lerna, whose name means water serpent. Represented with numerous heads, its number varies from five to one hundred²² (Fig. IV-3). Furthermore, some authors say that, as soon as one head was severed, one or two others would sprout in its place. Hesiod, the geographer of mythology, indicates that this creature was located in the far land of the Arimaspians, below the earth.²³

There was always a suspicion that actual events were behind the legend of Heracles’ battle against the Hydra and the Achelous River. Yet, even if it were possible to prove the existence of these events, according to Moreau de Jonnes,²⁴ the myth cannot be fully explained; one would still need to know why reality was hidden behind such allegory. Perhaps there will never be a complete explanation for these legends; nevertheless, starting from Ovid’s version, an effort will be made to lift the veil that has concealed the truth of Cadmus’ myth for so many millennia.

Cadmus, whose Semitic name means “East,” is related to the vigorous killer of the Hydra, Heracles, classically identified as Melkart,

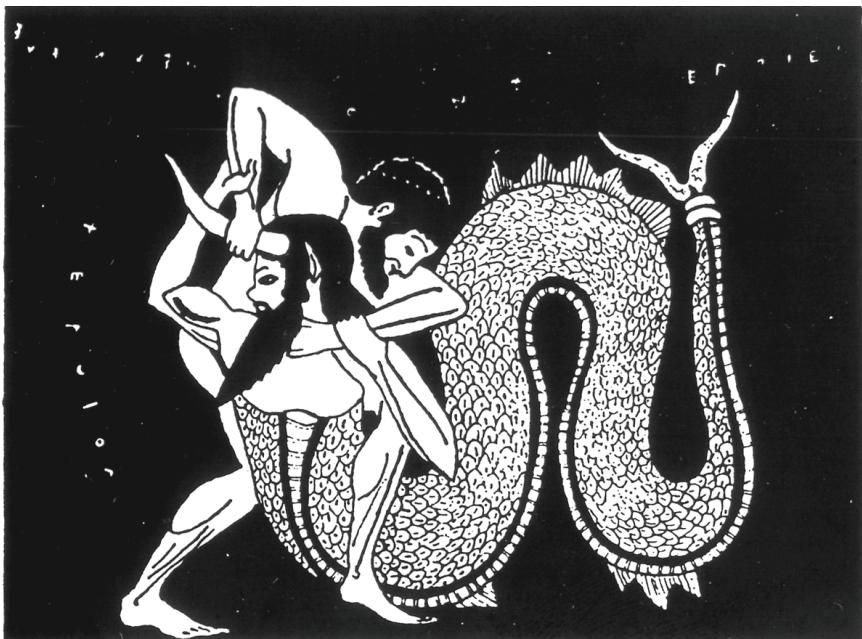


Figure IV- 2 . Allegorical battle of Heracles against the Achelous River.

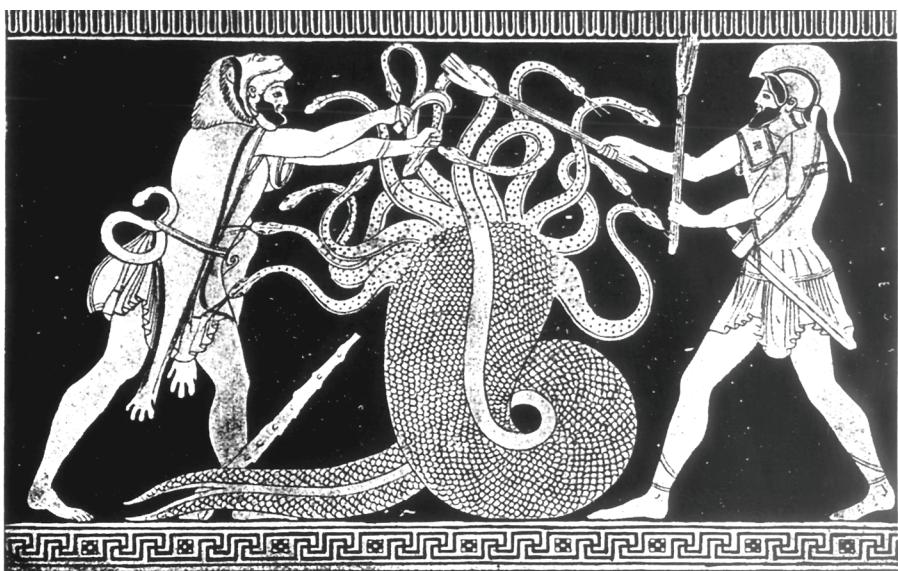


Figure IV- 3. Heracles wrestling with the Hydra of Lerna.

ferocious animals, Melkart is also considered the protector of navigation, the principal activity of the Phoenicians.

Some gods are frequently confused with this hero: Hermes Psychopompos,²⁶ or Hermes the conductor, as he was called by the Greeks, because he led souls to Hell; and Apollo, the killer of the monstrous snake Python. The multitude of heroes and gods involved in battles against serpents and dragons makes one realize that it would be pointless to tackle this myth from the heroes' side. One has no choice except to face the dragon.

Cadmus perhaps had killed several snakes, of various sizes. The snake, however, that immortalized him had nothing to do with reptiles, except for its appearance. To confirm this, one must pay attention to the enormous size of the creature, declared in verses 44-45: *...and looked down on the whole copse with a body as large as, were you to see it all, as the one that separated the twin Bears.* That is to say, comparable to Draco, the boreal constellation located between the Great Bear and Little Bear. This is not a literary hyperbole; rather, it is a mythological allegory, which could hide reality.²⁷ This reality appears if one took these verses literally.

In astronomy one knows that the distances between stars are comparable to geographical distances on the earth, if their respective arcs are projected over a sphere. The polar projection of the arc between Tanin, the star of the head of Draco, and Giansar, at the extreme end of the tail - when superimposed on the polar projection of South America - shows the Draco constellation coinciding with the length of the Amazon River (Fig. IV-4). The exact fit of the stellar and terrestrial arc segments, here, is a favorable coincidence, since the arcs suffer some distortion. The larger segment near the polar region appears contracted, while the smaller segment near the equator expands.

A detailed trigonometric calculation shows that the Draco constellation exceeds the geodesic arc between the headwaters and the mouth of the Amazon River by 15°. This discrepancy does not disqualify the interpretation, since the allegory only deals with a comparison of arcs rather than their exact measure. The present interpretation, which identifies the epic battle of Cadmus and Heracles against an immense snake (sometimes explicitly located in the Underworld) as an allegory representing the conquest of the Amazon River, allows one to comprehend the significance of the hydra's heads. These heads would

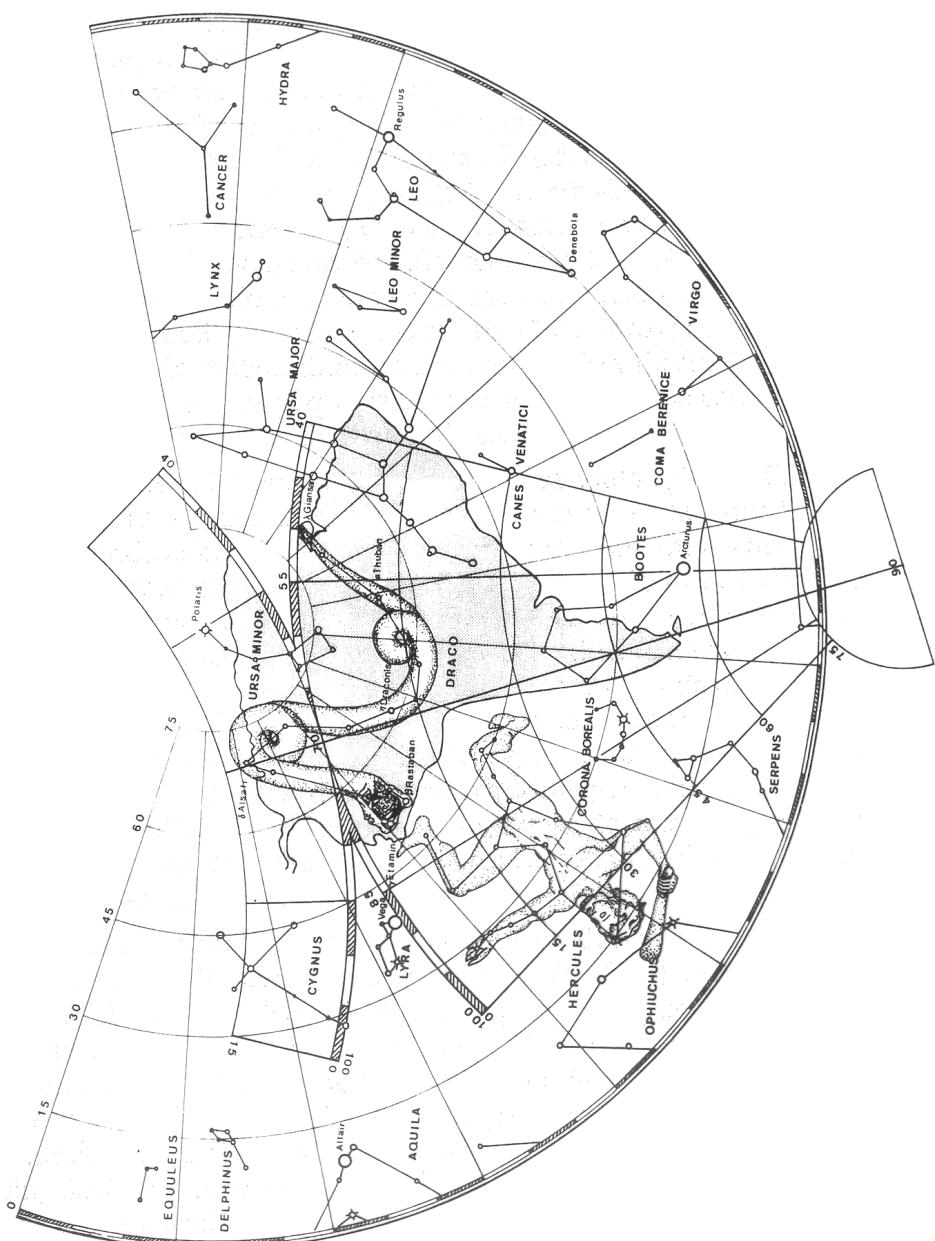


Figure IV- 4. Projection of polar coordinates of the Boreal Constellations (sector of 210 deg.) over South America (sector of 60 deg.), which allows to visualize the apparent dimension of Draco over the earth's surface.

likely represent the principal tributaries of the Amazon which, likewise, could be two, five, or more than one hundred. One need only look at a map to see the intricate water network of the Amazon Basin (Fig. II-2, Chap. II). If one were to “cut across” this network in a straight line, by clearing a path through the forest, then for every river that one would “cut across,” there would be one or more ahead, giving the explorer/adventurer the impression that the number of rivers increase in arithmetic progression the nearer one approaches their headwaters.

To locate the land in which Cadmus will have to establish a city, one must decipher the oracle of Phoebus (verses.10-18). Phoebus ($\Phiοιβος$) means “The Bright One.” This is a two-fold myth, since this is one of Apollo’s names, who was given the power to emit oracles, as well as the name of the sun. In verses 20-21 - *The cow stopped and lifted her lovely forehead with its tall horns toward the sky* - there is an allusion to the constellation of Taurus, where the vernal equinox remained during the fourth and third millennia, and was considered the beginning of the year in archaic astronomy.

Ancient mythologists identified the constellation of Taurus as the celestial representation of the metamorphosed god that had abducted Europa. Through this association the constellation was called *Portitor* (boatman), *Europae* or *Agenoreus*, by Ovid, referring to the abducted and her father, respectively. Martial even named it *Tyrius*, referring to Tyre, the country of Cadmus.²⁸ According to the myth, Europa had been abducted by the god and transported over the sea by the bull swimming in the waters; hence, the constellation was represented accordingly, showing only the top side. This is, precisely, the impression produced by the constellation of Taurus, when it sets toward the western horizon. According to our thesis this myth refers to an oceanic voyage. Arriving on the Brazilian coast after crossing the Atlantic Ocean, guided only by the sun and the stars, the Tyrian navigators looked at the constellation and listened to the waves breaking on the shore, observing the episode immortalized in verses 20-23: *the cow stopped and lifted her lovely forehead with its tall horns towards the sky and, disturbing the air with her mooing as she looked back to her companions following on behind, she sank down, lowering her side onto the soft grass.*

Guided by Phoebus (i.e., the oracle and the sun), and the constellation of Taurus, Cadmus reaches an unknown land, verses 24-25: *Cadmus gave thanks and planted kisses on this alien land and greeted the unfamiliar*

fields and mountains. According to verse 28, he disembarks in a virgin forest: *An ancient wood stood there, defiled by no ax.*

In the present geographical interpretation, the beginning of the battle against the “snake” corresponds to the discovery of the Amazon River and of Brazil. The geographical position of the mouth of the river seems to be in verse 50: *The sun, now at its highest, had made the shadows very small...* Despite the position of the sun denoting midday, it is improbable that time has any importance in the discovery of a continent. This verse contains “encapsulated” information on where the Tyrians battled the enormous aquatic “snake.” This corresponds to the equator where, on the average, midday shadows are shorter than at any other latitude.

In subsequent verses, Ovid poetically describes the battle against an immense and fierce “serpent,” which curves and twists unto itself, forming immense coils. It is not difficult to interpret this as allegorical descriptions of the innumerable islands and the winding course of the Amazon River. Anyone familiar with the majestic river recognizes, in these poetic descriptions, the impression that the monster of nature causes on the soul. “The Amazon is, without a doubt, the greatest of rivers,” declared Father João Daniel in his pre-scientific description of the Amazon,²⁹ calling it “Paraná Petinga” (White Sea), even though its most common name in Tupi³⁰ was “Paraná Uasú” (Large Sea). Without making the slightest allusion to the myth of Cadmus, he imagined the Amazon River to be an uncommon dragon.

The Theban allegory of the “snake” is a masterpiece of poetic creativity. Nevertheless, it was not able to transfigure completely the true nature of the “aquatic monster,” as revealed in verses 77-80: *The snake would at one point curl up within its coils making a vast circle, then it would stand up straighter than a length of planking, or be carried forward in a mighty rush, like a stream swollen by rainstorms, and with its breast push aside the woods standing in its way.*

The poisoned breath of the serpent, quoted in verse 49: “*killing (the Tyrian navigators) with the putrid breath of its deadly venom,*” recalls the Styx, the greatest river of Hades, described by Hesiod as “*an unpleasant and moldy place which even the gods loathe.*” In verses 32-33 there is an allusion to the gold, which is particularly abundant in the Peruvian Andes (the snake’s crest): *distinguished by its golden crest, the eyes of the snake gleamed with fire, and all its body swelled with venom.* In this allegory the shiny metal, which incited men to undertake the most perilous nautical endeavors, appears to be

associated with volcanoes. In fact, history reports a dozen active volcanoes in the Andes, which poetically could have been described as eyes of fire. In particular, there are several volcanoes in Ecuador's eastern Andes, from which slopes a number of rivers spill their waters into the Napo, Pastaza and Santiago, important tributaries of the Amazon River.

The existence of extensive volcanic activity in the Andes, which the geographical interpretation of the Cadmus myth appears to suggest, allows one to understand the meaning of verses 72-76: *Then indeed, when this fresh grievance has been added to its usual anger, (that is, the river which, at this point in the battle, corresponds to its headwaters), its throat swelled up with full veins, and a whitish foam round its noxious jaws; its scales scraped noisily on the earth, and black breath came from its Stygian mouth to infect the corrupted air.* The foam that dribbled from the pestilent lips of the serpent, i.e., from the river, is a poetic description of the very light and porous volcanic matter, which is less dense than water. When it condenses, after flowing through the fissures and volcanic vents, it is called pumice. Pumice fragments were frequently seen floating on the waters of the Amazon. According to Raimondi, the pumice came from a volcanic region located in Ecuador, through which the Pastaza River passes, carried by it to the Amazon River.³¹

The association of volcanic activity with the Hydra of Lerna can be easily identified in Greek literature. When referring to the fetid smell of the Anigrus River, which originates from a mountain in Arcadia, Pausanias writes that the unpleasant exhalation was due to the Hydra's venom.³² The exhalations alluded by Pausanias are none other than the usual gases emitted by sulfurous hot springs and active volcanoes.

The topography of the “snake” leads to unexpected results, which appear spontaneously. It is not easy to interpret the meaning of verse 34: *Its three tongues flickered.* But the following verse, *and its teeth stood in triple ranks*, which describes the fauces of the snake, is very significant. The mythographers of antiquity, including Apollonius Rhodius, narrate the sowing of the Dragon's teeth in an obvious sense, be it real or symbolic; no one made the slightest insinuation that they could be mountains, which in fact are odontoid (from the Greek, οδοντο.ειδης, i.e., toothlike. This interpretation leads one to consider the topography of the Andes. The Andean range is formed by high snowcapped mountains, running along the western side of South America. Starting from the Collao Plateau, where Lake Titicaca is located, the mountain chain splits into three

principal branches, which are then rejoined further North in Pasco, Peru, and in Loja, Ecuador. Therefore, if the snake which Cadmus conquered is an allegory of the Amazon River, then the triple row of teeth is an allegory of the triple row of mountains, where the headwaters are situated. In this light, Cadmus' sowing of the teeth would mean that he, the civilizer, cultivates or introduces the teaching of agriculture, the manipulation of seed and the implements required for cultivation in these "teeth," interpreted, here, as the Andean range.

The incredible event described by Ovid, *the miraculous harvest of the dragon's teeth*, allows one to deduce that Cadmus, on arriving in the Peruvian Andes, encountered a multitude of armed warriors, fighting an obstinate fratricidal battle, i.e., a nation "civilized" to the point of killing one another in a fatal civil war; with arrows, spears and everything that the deadly god of war - called Aucayoc by the Peruvians³³ - put in their hands.

Strange coincidence that nearly 3,000 years later, the Spanish conquistadors, called "viracochas" by the native Peruvians, saw the same barbarous scenes of a fratricidal battle. On that occasion, the warriors were fighting over a decadent empire, divided between Cuzco's legitimate heir, Huáscar, and his brother, Atahualpa, thus facilitating the Spanish conquest.

CADMUS AND VIRACOCHA

Is there an Andean civilizing hero in pre-Colombian traditions who corresponds to Cadmus? If such a figure did exist, he would form part of the mythical and religious tales of Viracocha.

Similarly, the hecatomb the Greeks offered to the gods on special occasions, occurred in Cuzco, Peru, at grand festivities such as that of Intip Raimi, celebrating the June solstice, where the Incas made a sacrificial offering of a hundred llamas to the sun.³⁴ Following ancient traditions, each province was represented by its tribal chief who brought costumes and masks, used to keep alive the deeds of their heroes. Some of these costumes are of particular interest. According to Garcilaso, the Chanca Indians, of the present Ayacucho region, covered themselves with puma skins; with their heads covered by the puma head, they resembled Hercules.³⁵

The most telling information concerning a civilizing god can be found in the Viracocha myths. The origin of Viracocha, whose strange

name means “fat of the sea,” and the legends surrounding him, form part of the great enigma of the Inca civilization. Among the various and confusing narratives compiled after the Spanish conquest, that of Pedro Gutierrez de Santa Clara, in the late 16th century, stands out for being simple and informative.

In the villages of Paita, Puerto Viejo, and on Apuna Island, Gutierrez³⁶ relates, the Indians used, since time immemorial, rafts of light wood (balsa wood) and bamboo, with triangular sails and a rudder. They explained that their forefathers learned this from a man who came from the sea, arriving on those shores in a raft with a sail similar to the one they use now, and called him Viracocha, which means “foam of the sea” or “fat of the sea,” who was engendered by the sea, fatherless and motherless. Likewise the Spaniards, who arrived from the sea, were called Viracochas. This curious mythological fragment from the northern coast of Peru shows a navigating Viracocha, merely one facet of the Viracocha myth.

The ruins of the principal temple of Viracocha are located in Cacha, in the present-day village of San Pedro de Cacha. Lying on the right bank of the Vilcanota River, considered sacred by the Incas, the village is 120 km south of Cuzco, on the way to Puno. In this temple was a stone statue. Garcilaso, probably basing himself on the manuscripts of Blas Valera, describes it in these words:³⁷ “*It was (like) a man of high stature, with a beard longer than a span of the hand; his clothes were broad like a tunic or cassock, down to his feet. He had a strange animal, of unknown appearance, held by a chain.*” Another writer, Cieza de Leon, who passed through Cacha, relates having seen the statue of Tice Viracocha without, however, mentioning the beard:³⁸ “*In commemoration of their god Tice Viracocha, whom they called Creator, they constructed this temple and placed in it a stone idol the size of a man, with clothes and a crown or tiara on his head.*” One can no longer hope to confirm the statue’s appearance, because it was destroyed by iconoclastic Spaniards. Their descriptions do not correspond to the image one has of Cadmus or Hercules; one must remember, however, that the same gods or heroes were not always represented in the same manner by those who adapted them to their religion. Lucian of Samosata, referring to the Syrian Apollo, cites the example of the statue of Apollo in the temple of Hierapolis; rather than showing a naked youth, in accordance with the Greek representation of Apollo, he was depicted as a clothed and bearded adult.³⁹

WHEN DID THE MYTHICAL EVENT OF VIRACOCHA OCCUR?

In Quechuan, Viracocha means “fat” or “foam of the sea.” Peruvian tradition uses this name to describe the mythological navigators, preachers, thaumaturges, legislators, even the creator of the universe. Viracocha is a myth of great complexity. In relation to Greek theology it is comparable to Aphrodite, which the Greeks, by etymology, also connected with the foam of the sea (ἀφρος = foam). Hesiod⁴⁰ (*Theogony*, 155-200) stated that Aphrodite was borne from the waters, after Kronus mutilated the reproductive organ of his father, Uranus (the sky). A white foam emerged from the sea, of which Aphrodite was borne.

According to some Peruvian traditions, Viracocha, as creator, civilizer, and legislator, appeared during a period of obscurity and darkness. Other writers state his presence is linked to a phenomenon that seems to describe a volcanic eruption. One does not know how this information was transmitted, but can only surmise that those relating the facts were the *kipukamayos*, using a mnemonic system of cords with knots called *kipus*. The narrations which establish the volcanic eruption with the presence of Viracocha explain that, to punish the Canas Indians who worshipped a goddess situated on the highest points of the mountains, he sent down a terrifying fire from the sky which appeared to melt like wax the peak of a hill near Cacha.^{41, 42, 43}

Viracocha was also described as a venerable old man with a beard, holding a staff⁴⁴ and, by his appearance, was identified as an apostle. Influenced by strong religious pressures of the 16th and 17th centuries, they interpreted darkness with the darkness of the death of Christ.⁴⁵ Because of the moral and religious content of the Viracocha legends, he was identified as Saint Thomas.⁴⁶

In the Cacha site, Spanish writings mention the presence of light, vitrified black rocks, which allows one to infer the existence of an extinct volcano nearby. The lack of information as to the nature and age of the volcanic event, obliged the author to visit the site in February 1985, during which he met with the Peruvian archaeologist Manuel Chávez Ballón.

All that remains of the temple of Viracocha are some walls and the bases of cylindrical columns. The building occupies a rectangular area measuring 92 m in length by 26 m in width, constructed on a north-south axis, in the middle of which stands a 12-m high wall.⁴⁷ The foundations

were constructed using large stone blocks, dressed and fitted with notable mastery; above the stone foundations, however, is a thick sun-dried mud wall, of a different quality, indicating a later construction, possibly used to preserve the original structure. The temple of Viracocha is the highest Incan edifice known. Beside its dimensions, one must note the large diameter of the stone columns, of which only the bases have survived, and constructed similarly to the walls. The temple has 11 equidistant columns between the walls, aligned on either side of the central wall, resulting in 12 openings to the east and to the west.

An hour's climb from the temple lies an easily accessible volcanic crater. The extinct Quinsachata volcano, which in Quechuan means “three brothers,” because of the three hills that surround it, has a conical crater with a diameter of approximately 100 m. Scattered over the volcano are pyroclastic fragments of porous, vitrified black rock, of varying size, which were ejected from the crater during the eruption.

One of these fragments, collected by the author from the soil of Cacha, was submitted to spectroscopic analysis. Results indicate the rock as being a silicate of aluminum, calcium, magnesium and sodium, with traces of other elements.⁴⁸ The high sodium content indicates that the lava was quite fusible. The black color could be attributed to the presence of iron and titanium.

The volcanic rocks observed *in situ* show slight erosion and, despite being highly porous and the climate quite severe, seem to indicate a geologically recent volcanic eruption, confirming mythological traditions. Since there are no physical methods available to date the lava samples, there was no attempt to date the eruption.

Fortunately, one can estimate the age of the eruption without dating. Chávez Ballón informed the author that he encountered very old ceramic fragments in the lava fissures, of the type classified as A Marcavalle, dating around 1,400-1,200 B.C. This important find allows one to place the eruption of the volcano prior to the dating of the ceramic fragments; hence, the mythological event, narrated in Peruvian traditions, occurred at least 3,200-3,400 years ago. This definitely voids the ecclesiastic theory associating Viracocha with Saint Thomas; rather, Viracocha must be linked to the events relating to the origins of the oldest Peruvian cultures, which specialists call the formative period.

Most scholars have not given due attention to the Peruvian myths

recounting cataclysms, except for the archaeologists Julio C. Tello and Toribio Mejia Xesspe, who interpret these myths as oral traditions, preserved by the Andean people three to five thousand years ago.⁴⁹ After studying a series of legends that seems to report a cataclysm, they concluded that these traditions are legitimate, reporting a telluric phenomenon of great proportion, involving severe disturbances of the most recent stratigraphic layers in different regions of Peru, and which occurred in the formative period. The archaeologists conclude that a cataclysm occurred in the Andean region, and that the prolonged darkness of the sky, quoted in the Huarochiri myth,⁵⁰ was caused by airborne dust particles, resulting from the violent seismic upsets caused by volcanic eruptions.

The evidence of Augusto Cardich confirms their conclusions. Cardich collected a series of stratigraphic data from the excavations carried out in the Huargo Cave (alt., 4,000 m), in Huanuco Department.⁵¹ Despite the absence of volcanoes within a one hundred-kilometer radius, he found two layers containing volcanic ash, the older of which containing a larger concentration of ash (10%), and which radiocarbon dating placed at 1,620 B.C., with a tolerance of 230 years. He also discovered, in this layer, the region's oldest ceramic fragments. The results allow one to infer that the mythological events of Viracocha, regarding intense volcanic activity, atmospheric turmoil and darkness, probably occurred around 1,600 B.C.

ARCHAEOLOGY REGARDING CADMUS

The geographical interpretation of the Cadmus myth surmises the existence of navigational instruments, capable of measuring arcs, but where is the goniometer that can serve as proof? To defend the transatlantic voyage theory during the second millennium B.C., one needs to prove the existence of seaworthy vessels. What evidence does archaeology offer?

Archaeological evidence in favor of transatlantic voyages exists in abundance and was already considered by a number of authors.^{52, 53} The Anthropology and Archaeology Museum, in Lima, exhibits a primitive engraved stone monument, measuring approximately 60 cm in height. Located in a corridor without any identification, it seems as if the curators dare not reveal its origin. The authors of a guide to Sechin⁵⁴ make an unsubstantiated presumption that the engraving represents a scapula. The

monolith was found at the archaeological site of Sechin (Casma), related to the Chavin culture, on the Peruvian coast, north of Lima Department. Radio carbon⁵⁵ tests of the oldest charcoal remains found in the main temple of Sechin, date the site at around 1,000 B.C. It is presumed that the engraved monoliths, found in Sechin, are at least that old. The design represents a geometric shape of considerable depth, Fig. 5, suggesting a quadrant with a pointer at midpoint.⁵⁶ In the lower right-hand corner of the quadrant are two concentric circles, as expected in an instrument that allows the rotation and adjustment of one's course. No great leap of imagination is necessary to notice that this stone could represent the most ancient goniometer constructed by man. Fig. IV-5 also shows a diagram of a quadrant used to measure the azimuth, similar to one used by the astronomer Tycho Brahe,⁵⁷ in the second half of the 16th century. The absence of a scale in the Sechin quadrant can be easily explained: the ravages of time could have effaced the fine lines on the original instrument long before it was represented in stone by the artist.

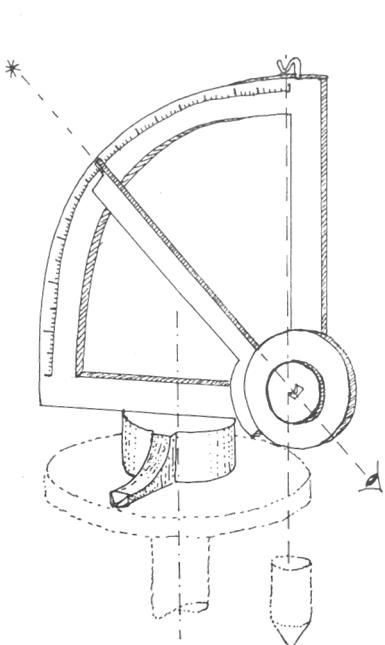


Figure IV- 5. The Sechin monolith (circa 1000 B.C.) with bas-relief, analogous to the drawn quadrant beside (a).

Other monuments at Sechin, which hold surprises, are the monoliths along the main entrance steps of the temple. The authors of the guide to this archaeological site presume them to be banners. Actually, if observed horizontally they seem to reveal vessels of Phoenician origin, similar to those represented in various medals (Fig. IV-6). The mast tied to the hull, distinctly engraved on the monoliths of Sechin, suggests that these vessels were ready to be transported overland. The masts tied to the sides allows them to be carried with ease. A passage by Apollonius of Rhodes (*Argonautica* IV, 1385-1387) suggests this form of transport was used during a voyage which Jason and his companions undertook through the desert of Africa, carrying on their shoulders the *Argos* for 12 days.

One knows little of the vessels that plied the Mediterranean, their routes or ports of call during the second millennium B.C. One can only deduce through clues that the port of Ugarit accommodated large vessels. From the size of a stone anchor found in this Phoenician port, Honor Frost estimated that the ship displaced 200 tons.⁵⁸

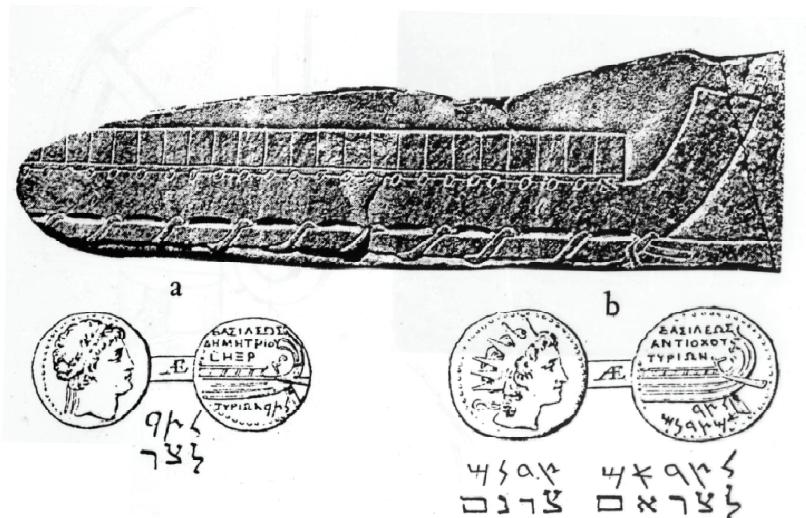


Figure IV- 6. Phoenician-like vessel engraved on Sechin's monolith. The main figure shows one of the pair of Sechin monoliths which, like banners, are located at the entrance to the principal temple. The incomplete figure, purposely sculpted on those monoliths, coincides with the vessel represented on Phoenician coins.

a) and b) Greco-Phoenician coins from Tyre, representing half a galley, on the reverse; the first one, with the effigy of King Demetrius; the second one,

that of King Antiochus IV. *Mémoires de Litterature de l'Academie Royale des Inscriptions et Belles-Lettres*, T. 30, p. 427, Pl. II, Paris, (1764).

In Chicago's Natural History Museum, there is a cedar vessel measuring 32 feet (9.6 m) in length.⁵⁹ This boat formed part of the funerary offerings to King Sesostris (Senusret) III, of the Twelfth Dynasty, and was found buried next to his pyramid in Dahshur. Egyptologists interpreted this funerary offering as part of a religious ritual: a vessel to transport the pharaoh's soul across the waters, to the Underworld. We have already mentioned that the Underworld or Hades, could refer to America. Note the strong and elegant design of the hull (Fig. IV-7), constructed with thick cedar planks, strong enough to face the sea. If Egyptologists accepted the hypothesis of a transoceanic voyage at that time, they would write the following errata: "With this boat of cedar, Sesostris III planned to navigate to the land of the dead" should read "with this embarkation of cedar, Sesostris III planned to navigate to America."

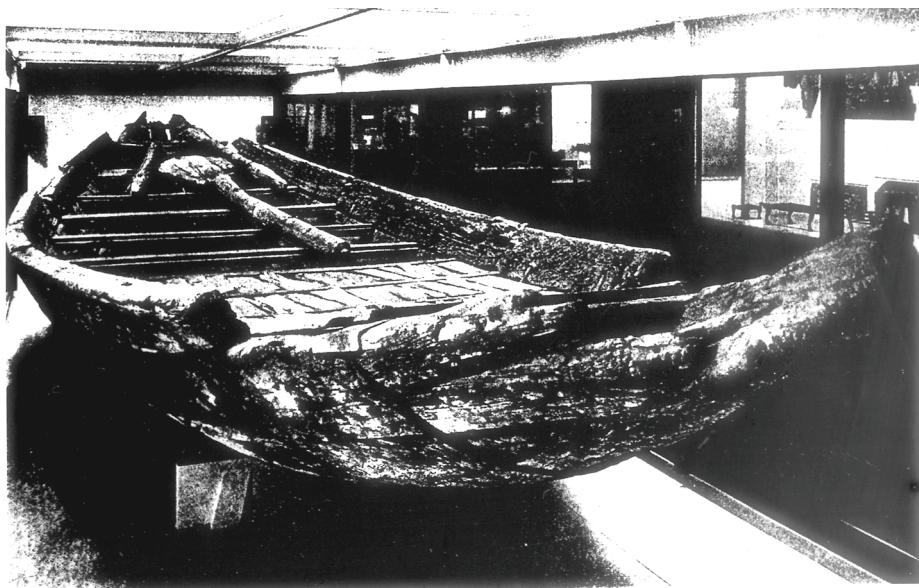


Figure IV- 7. Cedar vessel in which Sesostris III planned to navigate to the underworld (circa 1670 B.C.).

Another full-scale model of an ocean vessel could be disguised under the name of “funerary boat of Cheops.” This vessel is a magnificent piece of naval engineering, measuring 42.6 m in length⁶⁰ (Fig. IV-8). Some of its cedar planks measure 18 m in length. The largest vessels departing from the Egyptian shipyards, according to the records of the Palermo Stone, were constructed by King Sneferu.⁶¹ He brought to Egypt forty vessels laden with timber, from which he built 44 ships, some measuring up to 100 cubits (equivalent to 51 meters) in length.

If one can imagine an elegant ship, with a proud prow crowned by a gargoyle gliding over the “sinuous serpent” (the Amazon River), it might be Cadmus’ vessel. Pausanias allows this flight of imagination, reporting that, in Thebes, three images of Aphrodite were carved out of the wooden figurehead that crowned Cadmus’ ship.⁶²

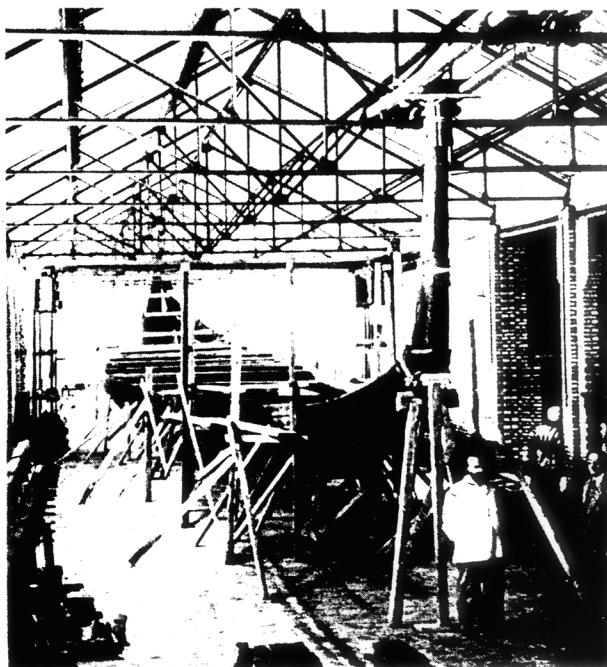


Figure IV- 8. Vessel, 42.6 m long, found next to the pyramid of Cheops.

The site of present-day downtown Thebes was where, thirty-five centuries ago, Cadmus ordered the construction of his royal house and founded the citadel of Cadmeia, atop a pear-shaped hill, flanked by the Dirce and Ismene Streams.

The first systematic excavations in the search for Mycenaean Cadmeia were conducted in 1906-1926 by A. Keramopoulos.⁶³ According to his conclusions, the remains of ancient Mycenaean walls found on the edges of the hill confirm that the acropolis of Cadmeia was surrounded by fortified walls. He attributed these walls to the twin sons of Zeus - Zethus and Amphion - who, according to mythology, ordered their construction.

According to Pausanias, Cadmus' house was located in the area of the ancient agora, or square; it was destroyed by Zeus' rays and over its ashes nothing was constructed, as it was considered a sacred place. The excavations of Keramopoulos, carried out near the center of Cadmeia (along Pindar Street, behind the present-day market), reveal the remains of a large Mycenaean edifice, destroyed by a violent fire, which he identified as Cadmus' house because it had been devastated by fire and nothing was constructed on its ruins until the Christian era.

Subsequent excavations carried out some forty meters from Cadmus' house reveal the so-called "treasure room." Also destroyed by fire, it contained gold jewelry - some worked with lapis lazuli and agate - as well as 39 lapis lazuli cylinders bearing cuneiform inscriptions, the latter of exceptional interest for being of Eastern origin. This "library" of cylinders confirms the legend that Cadmus brought writing from the Orient.

Today, only traces remain of the luxury and wealth of Cadmus' palace. Instead of exotic perfumes and aromatic wines, the ruins exhale the acrid smell of burnt earth, evoking the tragic end of a race. The line of heroes ended on the perimeter of that citadel - one of the most memorable episodes in the tragedies of Aeschylus, narrated in one of the poet and dramatist's most famous works, *Seven against Thebes*. Cylinders, jars, inscriptions, gold and precious stone jewelry, artistic works of ivory, fragments of beautiful frescoes showing the procession of a Mycenaean princess - none of the remains retrieved from the burnt soil suggest that the citadel was inhabited after the fire. The site remained unoccupied until

the Christian era.

When Pausanias visited the site claimed to hold the remains of Cadmus' house - not far from the gate and the communal grave of the soldiers who fought against Alexander the Great and his troops - he was told that this was where Cadmus sowed the dragon's teeth. Pausanias did not believe the story.⁶⁴ He could not have imagined how large those teeth were!

A LACONIAN TOWN CALLED BRAZIL

Cadmus' deeds were preserved in the myths and in the toponymy of the Laconia Peninsula, in southern Greece. The ancient name of Laconia, mentioned by Homer, was Lakedaemonia. Some authors claim it is named after the hero Laco or Lacedaemon; according to modern etymologists it is named after Lacus or Lacuna, owing to the deep valley through which the Eurotas River flows. Privileged by its pleasant climate and beautiful panorama, Homer called it "The lovely Lacedaemone" (*Iliad*, III, 443). In the middle of Laconia, bathed by the Eurotas River, is Sparta (Fig. IV-9). Its inhabitants (Sparti = sown-men), conserve the ancient tradition that they are descended from the teeth sown by Cadmus. Curiously, the eastern coast of Laconia, washed by the waters of the Argolic gulf and belonging to the modern eparchy of Kynouria, had a small Mycenaean town named Brasiae. This region, washed by the waters of the Argolic Gulf, belongs to the modern eparchy of Kynouria. The name Brasiae seems to be linked to the Brazilian shores of South America, as shall be presently shown.

Pausanias (*Pausanias*, Book III, 24, 3) recounts that the inhabitants of Laconia preserved a series of myths about the Underworld or Hades.⁶⁵ The inhabitants of Brasiae say they have a story found nowhere else in Greece. They narrate that the daughter of Cadmus, Semele, after having given birth to Zeus's son, Dionysus, was locked in a chest and, together with the infant, were washed ashore onto the beaches of Brasiae. Hence, Pausanias explains, the town where they were borne by the waves, hitherto called Oreiatae, became known as Brasiae. In fact, *brasis*, in Greek, means the action of the waves washing up an object on the beach.⁶⁶ One must, then, reconsider the origin of the name "Brazil." Could it really have originated from the Semitic *brz*, meaning iron, as Professor Cyrus Gordon affirms; or perhaps from the aforementioned pre-Hellenic *brasis*?

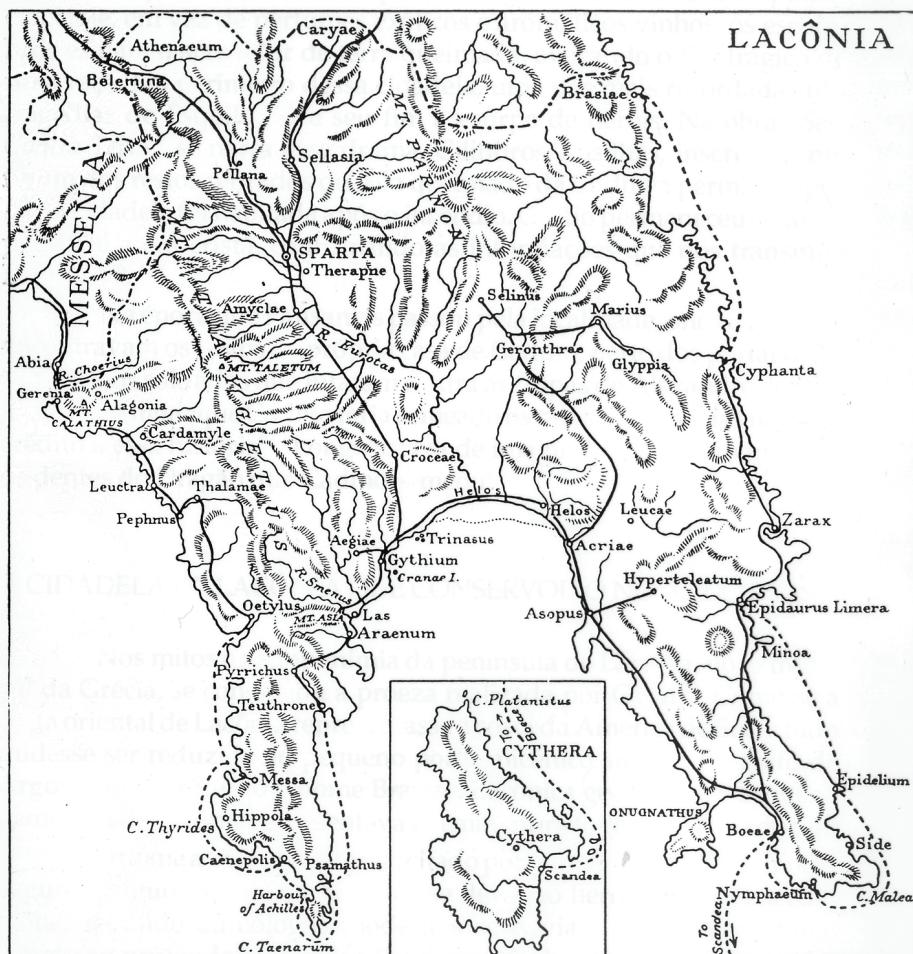


Figure IV- 9. Map of Laconia (Sparta)

The name Brazil could belong to a Mycenaean town in Laconia, called *Brasiae* by Pausanias.

CHAPTER V

TOPOGRAPHY OF THE UNDERWORLD

*perché, se cosa n'apparisce nova,
non dèe addur maraviglia al tuo volto.
Ed io ancor: Maestro, ove si trova
Flegetonte e Letè? ché dell'un taci,
e l'altro di'che si fa d'esta piova?
In tutte tue question certo mi piaci,
rispose; ma il bollor dell'acqua rossa
dovea ben solver l'una che tu faci.*

[Dante, *Inferno*, XIV, 128-135]

Hence if anything new appears to you,
it should not bring to your face any
sign of wonder.

(Dante) And I kept on: Teacher, where
are
Phlegethontal and Lethe? because of the
latter you say nothing,
and the other you say is formed from
this rain.

(Virgil) With all your questions you
surely please me,
he answered, but the red water's boiling
should answer the first you ask.

HOMER AND CLASSICAL GEOGRAPHY

The first elements of classical geography are found in two epic poems - the *Iliad* and the *Odyssey* by Homer - sacred symbols of the Greek nation. Throughout the centuries the Greeks retained an almost sacred respect for Homer's geography, until Herodotus, Polybius and Eratosthenes dared to differentiate separate recognizable topographic details, from vague and fabulous descriptions related in those works. Attempts to distinguish fact from fiction lead the cosmographers of Alexandria into frequent fits of despair.

Erastosthenes, unable to unravel Odysseus' voyage, spoke to scholars about his grievances: "We either recognize that Homer recounts fables about the countries visited by Odysseus, or we have to find again Aeolus with his bag of winds."¹ In fact, geography in Homer's poetry is an

inexplicable enigma if it is not preceded by explanations of the significance of poetic ideas.

Mythographers who studied the voyages described in Greek mythology circumscribe the nautical itineraries of the pre-Hellenics within the limits of the Mediterranean Sea. They usually concede a certain degree of historical authenticity to Heracles, Dionysus and the Greek leaders who sailed with Jason on the ship *Argo*, but are surprised when the Argonauts reached the ocean, and even more so when classic texts recount that Theseus and Pirithous went on such a long voyage to reach Hades.² The impossibility of finding a loophole, that would let them grasp the essence of Greek myths, was the main reason noted historians and geographers - like the Dane Malte-Brun, in his early 18th-century monumental history of geography - minimized the deeds of the pre-Hellenic navigators, recounted in Homer's poems. A case in point is the return of Menelaus to Laconia with his ships replete with riches. Here, Homer appears to describe a merchant voyage to the edges of the earth, to places so distant, that there is little hope of ever returning, due to violent storms and the vastness of the sea; so vast that even birds would take more than a year to traverse it.³ Such an account, which insinuates the difficulties of an oceanic voyage, only proves to Malte-Brun the nautical incompetence of the Greeks, who would consider miraculous a return to Greece, navigating the Mediterranean from the extreme north of Africa.⁴

In the late 19th century, a notable discovery took place which, to a certain degree, restored the historicity that classical authors attributed to Hellenic myths. The faith and vision of Schliemann, who seemed to see through the soil, according to Evans, restored Homer's credibility. After the discovery of Troy, in 1873, near the Turkish village of Tevfikiye, a series of archaeological revelations demonstrated that Homer faced two geographies when he composed his poems: the first, restricted to his personal knowledge of the sea and contact with navigators of his time, and, the second, which proceeded from the Mycenaean civilization, already extinct two or three centuries before his time.⁵

According to Louis Moulinier's⁶ geographic hypothesis, based on modern nautical reconstruction, the *Odyssey* tells the story of Odysseus, who leaves his native land - the rocky island of Ithaca - bound for Troy, where he remains for ten years. On returning with his men, he commits an act of piracy on the coast of Thrace. He then sails south, but a fierce storm changes his course, and he ends up passing through the Strait of

Cythera, in Southern Laconia, on the Greek peninsula. He resumes his southern course, where Homer situates the Lotus-Eaters, then changes his course due north, appearing near Etna, in Sicily. He then travels to Alicut, the westernmost of the Eolian Islands. He continues his course toward the unknown north, stopping at Bonifacio, where all his ships, except his own, are destroyed. From this point, Moulinier points out, it would be futile to attempt to reconstruct his itinerary on maps, given that he plies a mysterious course of water, leading him to the Far East, where the sun rises each dawn, to meet up with Circe. The sorceress sends him to the land of the dead, situated at the other end of the ocean.

VOYAGE TO THE UNDERWORLD

Antiquity provides us with two episodes and two amalgamated titles at the end of the tenth book and the beginning of the eleventh book of the *Odyssey*, which deal with Odysseus' two extraordinary adventures to the land of the dead: NECROMANCY (NEKYOMANTEIA), evoking the dead, and NEKYIA, the voyage to the land of the dead.⁷ Part of the end of the tenth book is transcribed below, in order to analyze its content in light of the present interpretation. In these verses, Homer, through the lips of the sorceress Circe, recites the nautical instructions and the topographical descriptions which allowed Odysseus to reach Hades, which Homer imagined to be the land of the dead (*Odyssey*, X, 488-515):

*CIRCE: Son of Laertes and seed of Zeus, resourceful Odysseus,
you shall no longer stay in my house when none of you wish to;
490 but first there is another journey you must accomplish
and reach the house of Hades and of revered Persephone,
there to consult with the soul of Teiresias the Theban,
the blind prophet, whose senses stay unshaken with him,
to whom alone Persephone has granted intelligence
495 even after death, but the rest of them are flitting shadows.
So she spoke, and the inward heart in me was broken,
and I sat down on the bed and cried, nor did the heart in me
wish to go on living any longer, nor to look on the sunlight.
But when I had glutted myself with rolling about and weeping,
500 then at last I spoke aloud and answered the goddess:*

*ODYSSEUS: "Circe, who will be our guide on that journey? No one
has ever yet in a black ship gone all the way to Hades."*

So I spoke, and she, shining among goddesses, answered:

CIRCE: "Son of Laertes and seed of Zeus, resourceful Odysseus,
 505 let no need for a guide on your ship trouble you; only
 set up your mast pole and spread the white sails upon it,
 and sit still, and let the blast of the North Wind carry you.
 But when you have crossed with your ship the stream of the Ocean, you
 will
 find there a thickly wooded shore, and the groves of Persephone,
 510 and tall black poplars growing, and fruit-perishing willows;
 then beach your ship on the shore of the deep-eddying Ocean
 and yourself go forward into the moldering home of Hades.
 There Pyriphlegethon and Kokytos, which is an off-break
 from the water of the Styx, flow into Acheron. There is
 515 a rock there, and the junction of two thunderous rivers."

Odysseus' voyage to the land of the dead represents a group of tales, of Mycenaean origin, which survived as oral myths until Homer's time. It is difficult to know at exactly what point between real and symbolic Homer placed that myth; attempts in antiquity to decipher the significance of the "allegories of Homer" note that it was idealized to an extreme degree, as a master of symbolism.⁸ Meanwhile, it is believed that Circe's instructions contain important geographical elements of ancient transatlantic navigation. It is likely that the extraordinary visit to a place below the earth, which they imagined to be Hell, was not understood in their time, precisely for seeming to be an impossible feat, of great impact and deserving an outstanding place in epic songs, until it was put "on paper" three hundred years later by Greece's greatest poet. One cannot determine whether or not he knew the real significance of the myth; what matters is that he was able to preserve these narratives in an invisible time capsule, protecting them with his talent. Hence, it is not unusual to find that neither Moulinier nor other interpreters of the *Odyssey* were able to reconstruct Odysseus' wanderings, starting from Circe's instructions, since the nautical route was beyond their geographical charts.

On what seas did Odysseus' black ship indeed ply? In the geographic interpretation of Hesiod's *Theogony*, the mythological Styx has been identified with the Amazon River, from its origin on the eastern slopes of the Huayhuash Cordillera, down to the deep waters of the Atlantic Ocean. Consequently, the Styx of Homer also refers to the same

river, or at least to the upper part of its course, since in the verses of NEKYIA, the Acheron River is formed by the confluence of the Styx, the Pyriphlegethon and the Cocytus. Circe's instructions are specific about this point: a rock emerges where the thunderous rivers meet.

Recapitulating Circe's instructions: after crossing the ocean, Odysseus has to locate a river that will allow him to cross the swamps of Hades; consequently, from the ocean, in the direction of Hades, he will have to take the Acheron River, unless he prefers to walk through the swamps of Hades. As the three rivers come together to form the Acheron, such an abundance of water has to be the major river of the Underworld which, naturally, one can identify with the Amazon River.

Due to its slight declivity, the Amazon is easily navigable; anyone who enters its immense mouth can sail upstream until the formidable wall of the cordillera of the Andes appears on the horizon. Whoever accomplished this voyage from the Northern Hemisphere, observing the stars, would have the strange sensation of descending into a deep abyss. When navigating the Amazon, one does not encounter any thunderous confluences of rivers, raging between rocky gorges, until reaching the frightful Pongo de Manseriche. Only this spot justifies the precious verses of the great poet (*Odyssey*, X, 513-516):

...go forward into the moldering home of Hades.
There, Pyriphlegethon and Kokytos, which is an off-break
from the water of the Styx, flow into Acheron. There is
a rock there, and the junction of two thunderous rivers.

It is no surprise that the same river is called Styx by Hesiod and Styx, Cocytus and Acheron by Homer. The destiny of this river-sea is to have different names. In Peru, starting from its principal source down to its confluence with the Ucayali, it is called the Marañón; from there to the ocean it is called the Amazon. In Brazil, from the Peruvian border until its confluence with the majestic Rio Negro, it is called the Solimões, after which point it is known as the Amazon.

According to the present interpretation, the Styx of the *Odyssey* refers to the Marañón; the problem is establishing where the Styx meets the Cocytus or rather the "River of Lamentations." It was explained in the previous chapter that the Marañón flows relatively slowly from the Mayasi Waterfall to the Pongo de Manseriche. On this stretch, only one important river enters on the left bank, exactly at the entrance to the

Pongo de Manseriche. Can one identify this point as the place where the waters of the Styx join the Cocytus? If this were the case, the Pyriphlegethon could be automatically identified with the Santiago River. There is also another reason favoring this identification: the actual name of the river of Hades, Πυρι-φλεγεθών (Pyri-phlegethon), which means “river in flames.” Heraclitus discusses the etymology of the name and says it is a symbol representing the flames of funerary pyres.⁹ Certainly, this was a clever interpretation at the time, but one needs to discuss the type of fire that immortalized the river.

The Santiago River, called Canusayaco by the natives who lived along its banks, begins in the Cordillera Oriental of the Ecuadorian Andes, on the slopes of the Sangay, the southernmost of a series of volcanoes.¹⁰ According to La Condamine, it became active starting in 1728; there are indications, however, that it erupted several times in the distant past.¹¹ Thus, the name “Pyriphlegethon” probably referred to a volcanic eruption that could have warmed the waters of a tributary of the Marañón, possibly the Santiago River.

AUTHOR'S JOURNEY TO THE PONGO DE MANSERICHE

Beginning in March the waters of the Upper Marañón begin to decrease in volume, until reaching their lowest level in August; it is then that the narrow gorge of the Pongo de Manseriche can be traversed safely by boat. I waited many years for the opportunity to see firsthand the pongo, and the best time to do it would be at this period. With this in mind, in April 1989, I wrote to my friend, General Max Verastegui, in Lima, about my plans. After making inquiries with the Peruvian Army authorities, he replied that the Army's commander-in-chief, General Artemio Palomino - sensitive to the scientific importance of my project - had approved my request, despite the country's serious domestic crisis arising from terrorist acts.

As the departure day drew nearer, the prospect of visiting this famous place excited me. To arrive and pass through the feared gateways to that mysterious land, replete with wealth and defended by an immense river, must have been an extraordinary feat in ancient times. So much so that it became a legend, giving rise to a myth, allegorically represented by the defeat of the monstrous Hydra. Today, a trip through the Pongo de Manseriche can be compared to a leisurely ride. To cross it, one no longer

needs to don a lion skin. Just a life jacket.

I traveled from Rio de Janeiro to Lima and, on July 23, 1989, proceeded to Chiclayo, in northern Peru. There, I received a radio message from General Maximo Bracamonte, commander of the Fifth Jungle Infantry Division, that a helicopter (Illus. 14) would take me to his headquarters, El Milagro, on the banks of the Marañón River, near Bagua.

On the morning of July 27, I left El Milagro for Teniente Pinglo Military Base, flying over the Marañón River at more than 1,000 m altitude. Below, on the right bank of the river, one could see the Imasa River where, more than 250 years ago, La Condamine began his historic journey on the Marañón, down to the Atlantic Ocean (Illus. 15).

Teniente Pinglo Military Base lies on the left bank of the Marañón, just past its confluence with the Santiago River, practically at the entrance to the Pongo de Manseriche. During my stay in this region, the base commander, Lieutenant Colonel Juan Pacheco Lopez, placed his facilities and men at my disposal. The day before my arrival, it rained heavily, raising the level of the Santiago; the following day, however, the waters dropped sufficiently to permit us to enter the pongo.

Commander Pacheco summoned the region's best "pongero," Julio Chaves Davila, whose excellent knowledge of the currents, obstacles and "bad stretches" of the pongo, allows him to safely transport passengers along the waterway in his motor boat.

Burning with impatience I readily paid my fare of 40,000 intis (approximately US\$13) and began the crossing of the pongo. I felt deceived for not feeling the fear and fascination that the awesome canyon caused the navigators of old. On the way out I asked our "pongero" to keep back a distance from the village of Borja, so that I could contemplate the pongo's entrance from afar. It was at that moment that I saw a row of enormous, white limestone boulders, on the left bank of the river, forming a natural protective barrier to the village. Here was the "White Rock" (*λευκας πετρη*) (Illus. 16), the age-old landmark of the gateway to the domains of Pluto (Illus. 17). Afterwards, despoiled of its true original significance and already perfectly integrated into mythological narrative, it became part of the Underworld, considered imaginary by Homer himself, as he cites in verse 11, Book XXIV of the *Odyssey*: *They went along, and passed the Ocean stream, and the White Rock.*

Why was the "White Rock" of Borja considered a landmark?

The Pongo de Manseriche is a tortuous canyon, created by the erosion of the waters that manage to pass through the Cordillera Campanquiz, which is the last eastern barrier of the Andes. Erosion is always easier where there is limestone, and this type of rock is frequently seen in the pongo. On the other hand, it has to be emphasized that the forest along the banks of the Marañón, downstream from Borja, presents an extremely monotonous landscape, and in this world of water, foliage and mud, the presence of a simple stone causes an impression. This was observed in 1743 by La Condamine. Starting from Borja, 500 leagues downstream (some 3,700 km), said the French scientist, a stone, a simple pebble, is as rare as a diamond. The Indians of this region were not aware of stones nor did they have any idea of their existence. It was amusing to see the spectacle, commented La Condamine, when some of them arrived in Borja and saw them for the first time; they picked them up and placed them in their bags with admiration. Afterwards, they threw them away once they realized they were just ordinary stones.¹² One can imagine how the ancient navigators must have felt on seeing the first barrier of the Andes on the horizon - the Cordillera Campanquiz - after having crossed vast forests, "the swamps of Hades." Seeing the rocks from afar, a voice echoed from the river, shouting with admiration and relief: *Lenas Petra!* (White Rock), because its presence indicated that they had not gone off course.

Two days after my first descent of the pongo, the river's level fell some two meters and I returned to cross it again. On this occasion, I was able to see the famous rock, which emerged more than one-and-a-half meters above the water, nearly halfway down the pongo, at a point where the current passes the highest flanks of the cordillera (Illus. 18-19). That rock, called "Charapa" (a species of river turtle), emerges from the riverbed like a black rocky crest, inclined forward at a 45-degree angle. This notable life-threatening obstacle, could have been the legendary rock Odysseus had to find at the junction of two thunderous rivers, the spot where the Styx met the Pyriphlethon and the Cocytus. To identify it as Odysseus' rock, one would only need to hear the waters roar.

Those visiting the pongo in the summer favor this identification. From December to March, when the rising waters of the Marañón join those of the Santiago, the river becomes thunderous, forming enormous whirlpools that suck huge trees of up to fifty meters in length. Under such conditions the pongo is fearsome.

There is no satisfactory etymology for the Marañón River; most likely it is an old name for the Amazon River, though it preserved its name in the stretch that extends from its headwaters to the Ucayali River, and in Marajó Island, at the mouth of the Amazon, phonetically similar to the name *Marañón*. But, if the significance of that name is still obscure, the Quechuan etymology of the pongo and some of its points are revealing. Pongo de Manseriche is the Spanish corruption of the Quechuan *Puncu Mancharichiy*, which means the frightening or terrifying gateway.¹³ Once again, one finds this adjective matching the etymology of the most famous river in the Underworld (στυξ, or στυγος; Styx or genitive Stigos), which means cold, chilly, horrible or terrifying. Moreover, there are two points in the pongo where the proximity of the rocky cliffs, and the curves of the channel, force the current to change course, producing strong whirlpools. These points are known as “Huacanqui” and “Asna-huacanqui,”¹⁴ corruptions of the Quechuan *Wakákuy* and *Asna-Wakákuy* which mean, respectively, to cry or “to lament” and “lament until fainting.”¹⁵

Consequently, the etymology of this name corresponds perfectly with the place identified as the meeting point of the Styx with the Pyriphlegethon, called Cocytus, which in Greek means “lamentations”! What is most surprising is that neither the moans nor the lamentations of the shipwrecked preserved the name of the place but, rather, the deep-rooted popular faith in the water of “Huacanqui” - considered a powerful love potion - that falls drop by drop from stalactites in a cliffside cave on the left bank of the pongo (Illus. 20-21). The drops from a stalactite resembling a phallus were used to subdue women. Likewise, the water from a “voluptuous slit” in the rock was used by women to seduce their chosen men.

THE LOCATION OF PYRIPHLEGETHON ON GEOGRAPHIC MAPS

The crucial point in the geographic interpretation of NEKYIA is the identification of Pyriphlegethon. By etymology and its relation with the Styx, it should correspond to an important tributary of the Marañón, which originates from hot springs or formerly active volcanoes. Consequently, besides the Santiago, one must also examine other Andean rivers that could satisfy these conditions. In fact, there are other tributaries of the Marañón that originate from the volcanic region of the Ecuadorian Andes. These are the Morona, whose headwaters originate near the Sangay volcano, and the Pastaza, formed by the Chambo and

Patate Rivers, which flow through the Riobamba and Ambato Valleys - veritable Pluto-like amphitheaters completely encircled by the Sangay, Altar, Tungaragua, Chimborazo and Iliniza volcanoes. Finally, still on the left bank of the Marañón, yet at a considerable distance from the aforementioned, is the Napo River, with its headwaters originating from the Cotopaxi, Sincholagua, Antisana and Ruminahui volcanoes (Map I).

On the right bank of the Marañón, only one river merits attention: the extensive Ucayali. This important river of the Amazon Basin originates in the frozen cordilleras near Cuzco and, as previously mentioned, joins the Marañón to form the majestic Amazon. The Ucayali's size and origin makes it the most outstanding "river of fire." There is evidence identifying it as one of the rivers that inspired the Greek Pyriphlegethon and the Roman Phlegethontal. The Ucayali acquires various names as it plies the cordillera. At its headwaters, on the Vilcanota glacier, in the Cordillera Carabaya, it bears the glacier's name. Flowing northeast, it passes near Cuzco and the ancient Incan ruins of Pisac and Ollantaytambo, as Vilcamayo, which means "sacred river" in Quechuan (it was also called Yucay in this region). Then, it becomes the Urubamba, picking up speed as it descends through the ruins of Machu Picchu, a semitropical forest and deep valleys until it violently enters the Pongo de Mainique, crossing the final barrier of the Andean spurs. After flowing extensively through humid forests, the Urubamba River receives the waters of the Apurimac River (called the Tambo in this region) and finally forms the Ucayali.

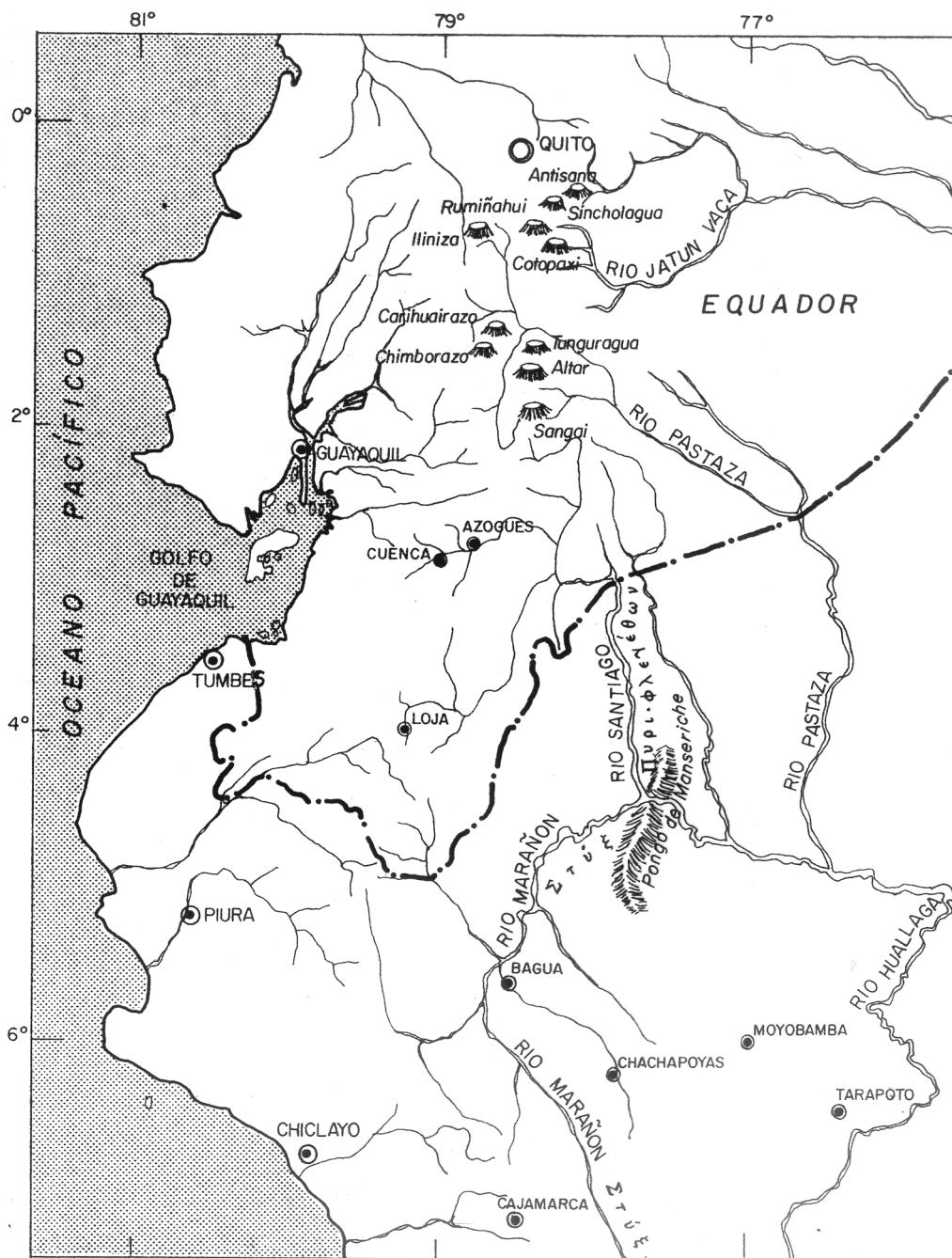
Explorers who ventured along the Pongo de Mainique instinctively perceived that it had no parallel on earth. No other spot is more spectacular or offers such grandiose scenery as this pongo, formed by a narrow gorge of craggy rocks, from which lush vegetation and numerous cascades gush forth from deep caves, forming the most imposing show that nature can offer amidst the forest. One can easily identify the Pongo de Mainique as one of the gateways which the ancient poets described as an insurmountable barrier for those wishing to enter the regions of Hell. The American explorer Major J. Arton Kerbery and two fellow Americans crossed the Pongo, in July 1897; in a letter to the U. S. ambassador in Lima, he wrote: "We have been to the Colorado and have acquired some experience in crossing our pongos but, I must say that, except for the fiery flames of Hell, nothing compares to the fury of the Pongo de Mainique."¹⁶ In this region of unexplored forests, prior to the confluence of the Paucartambo and Urubamba Rivers, the explorer

Von Hassell found ancient Incan stone roads, laid along the highest mountain points. These roads slowly disappeared as they approached the Chichi volcano, so named by Von Hassell, in 1905.¹⁷

The headwaters of the Ucayali lie in the Andes' Vilcanota mountain range at "La Raya" ("the line" or "the frontier"), thus named because of the divide (*divortium aquarium*) which separates the Amazon Basin from the Collao Basin, site of immense Lake Titicaca. This place was famous well before the Spaniards arrived; not only for dividing the waters, but also for dividing two nations - the Quechuans and the Aimaras. Father Acosta, one of the first Spaniards to travel these cold regions, along with Friar Lizarraga, reports the first impressions of a European, from the summits of a recently discovered world:¹⁸

The Vilcanota is a mountain which, by general opinion, is situated in the highest part of Peru. Its summit and sides are covered by snow, and in parts it is black like charcoal. Nearby, two springs emerge from the ground, which flow opposite one another and then, with more volume, they flow like torrential rivers, one going to Collao, where Lake Titicaca is situated; and the other goes along the Andes by the name of Yucay. This last one, after receiving the waters of numerous rivers, flows into the Atlantic with enormous volume. The spring, which emerges amongst Vilcanota's rocks, appears like lye; exhaling scalding vapors, flowing this way for some distance, until joining its waters with other small streams, and diminishing in heat and smoke.

There are several hot springs in the Peruvian Andes, which appear to have been more active in the past, due to the amount of deposits accumulated on the rocks. When Raimondi explored the headwaters of the Vilcanota River, three hundred years after Acosta and Lizarraga's visit, he confirmed the existence of such a hot spring, describing it simply as a hot ferruginous spring.¹⁹





Map 1. PROJECTION OF THE
MYTHOLOGICAL RIVERS OVER
THE NORTHERN REGION OF
PERU.
According to the geographical
interpretation of Homer's
NEKYIA.

Along the right bank of the Vilcanota River, near the village of San Pedro de Cacha, some 20 km south of La Raya, is a small extinct volcano. Spongy black rocks are scattered everywhere, expelled by a violent prehistoric eruption, that is remembered in Incan traditions and which was mentioned in the previous chapter. Among all the Amazon Basin's "igneous rivers," only the Ucayali can be identified as Homer's Pyriphlegethon by its Greek name, which is still preserved by the Indians who have lived along its river banks since time immemorial. The two large indigenous nations that live on the Ucayali Basin are known as Piros and Conivos.²⁰ The Greek πυρι (pyri), used as a prefix, denotes fire, combustion, like in Πυρι-φλεγεθών (Pyriphlegethon), which means "with burning flames." πυρρος (pirros) means red, like fire. Therefore, the name of the Piros Indians may be of Greek origin. Their name is not a fortuitous coincidence, since the name of the Conivo tribe is also related to fire. *Coni* means "hot" in Quechuan.²¹

Finally, one must consider the Collao Basin, wherein lies Lake Titicaca. This basin, which receives the waters from the southern slopes of La Raya, located to the north, has no outlet to the ocean. The waters collected by Lake Titicaca flow to the Desaguadero River which then disappears into saline Lake Poopo, in Bolivia. As these lakes lie about 3,800 m above sea level, one has the impression that the waters are swallowed by the earth and carried underground to the ocean. This was how the Spaniards perceived these isolated lakes. One knows, today, that this phenomenon is due to the high altitude. Low atmospheric pressure and low humidity, combined with strong winds and intense solar radiation, cause a lake's surface water to rapidly evaporate; at the same time, the intense evaporation lowers the water temperature, establishing a delicate balance, where the water the lake receives annually, from tributaries and rain, evaporates in an equal quantity.

Recalling Plato's theory on the earth's structure (see chapter I), where he bases himself on mythological elements, one notes that Lake Styx - which he says is found in the Underworld and its waters are swallowed by the earth - seems to correspond to Lake Titicaca. One can also recognize mythological elements, based on the same Andean lake, in his thesis on the origin of a second lake, also in the Underworld and as big as the Ionian Sea - and formed by a fervent and muddy river. Did Plato invent these explanations? Or did he base them on mythological narrations - many of which are unknown to us - and try to form a

hypothesis on the structure of the earth?

The profound knowledge which Dante reveals about the topography of the Underworld and, in particular, the wealth of details concerning mythological entities, attracted the attention of the mythographer Fontenrose. He suspected that the Florentine poet had access to other sources, which did not survive the centuries.²² The herein suggested interpretation of NEKYIA also allows one to ascertain this privileged knowledge of Dante's, expressed in the verses cited in the epigraph, describing the source of the Pyriphlegethon, as a spring of fervent and ferruginous waters, which coincides perfectly with the Vilcanota spring.

There is another surprising similarity between reality and the scene described by Dante, in his *Inferno* (XIV, 141-142):

*The margins burn not, they shall make our road,
and all the fires are quenched there overhead.*

“Try to walk behind me,” Dante tells Virgil. “The banks of the Phlegethontal which are not burning, open the way, and the flames of fire falling on the river are quenched in the air.”

Inferno, XV, 1-3 :

*Now one of the hard margins carries us along,
and the vapor from the river gives a shelter that
protects the water and the banks from the fire.*

The two poets set off along the wide wall of stone that followed the Phlegethontal's course. The thick mist that rose from the water's surface formed heavy clouds that protected the river, as well as the paths along its banks, from the fire.

Today the Vilcanota hot springs are much less active than in the past, as can be verified by the reports of early travelers. Friar Lizarraga, who visited the region in the second half of the 16th century, observed the strong activity of the hot springs²³: *The river originates from Lake Vilcanota, which is situated near the glacier, from where the springs of hot water emanate....From a distance it gives the impression of an enormous fire, from the quantity of vapors that emanates from the springs. The water that comes out from the rock is so hot that it is impossible to touch.*

Further on, describing the La Raya region, where there are two springs - one flowing to the Amazon Basin, the other to Lake Titicaca - he states: *Just a little further on, like half a league, one sees a stone wall that runs from one mountain snow line to another, crossing the pathway of the Incas...*

How did Dante know that the Pyriphlegethon's waters came from a ferruginous hot spring? "*the red water's boiling should answer the first you ask.* How was he able to "see" Vilcanota's springs, including the old pathway along its banks? How did he know that on the other slope of La Raya was a lake of icy waters (which he called "Cocytus") like Lake Titicaca? (*Inferno*, XIV, 118-120):

*When there is no more descent:
they form Cocytus; and what that lake is
you will see; so here I do not tell about it.*

NECROMANCY OR EVOKING THE DEAD

Oriented by Circe, Odysseus and his companions cross the ocean. After directing them to a notable point in the domains of Hades - where two turbulent rivers meet thunderously at a rock amidst the river - she explains how they should proceed in order to find their way back. Here, Odysseus has to dig a pit of approximately one cubit on each side, over which he will practice necromancy to invoke the spirit of the soothsayer Teiresias, who will show him the way back. Odysseus will perform three libations around the pit: first with milk and honey, then with sweet wine and, lastly, with pure water. After sprinkling the pit with white flour, he will invoke the dead (*Odyssey*, X, 522-525):

*...returning to Ithaka, you will slaughter a barren
cow, your best, in your palace and pile the pyre with treasures,
and to Tiresias apart dedicate an all-black ram,
the one conspicuous in all your sheep flocks.*

Also, at the confluence of the rivers, he has to sacrifice a ram and a black ewe (*Odyssey*, X, 526-529):

*But when with prayers you have entreated the glorious hordes
of the dead, then sacrifice one ram and one black ewe,
turning their heads toward Erebus, but yourself turn away from them
and setting thy face toward the stream of the river.*

Finally, Circe advises him (*Odyssey*, X, 538-540):

Then, leader of the host, the prophet (Tiresias) will soon come to you, and he will tell you the way to go, the stages of your journey, and tell you how to make your way home on the sea where the fish swarm.

Exactly on a solid spur of sand, soil and stones, formed by the confluence of the Marañón and Santiago Rivers, at the entrance to the pongo - where a dense forest once lay - Odysseus and his companions could have indeed evoked the dead.

Circe's instructions could have been followed easily at the entrance to the pongo. The goddess did not order the sacrifice of a sterile cow there; only the lamb and the black ewe were to be sacrificed in the domains of Hades. In fact, bovines did not exist in pre-Colombian Peru, they being introduced by the conquistadors. Apropos ovines, it is important to recall the Spaniards' impressions on seeing guanacos - or llamas - for the first time: they called them sheep, for their resemblance to European ovines.²⁴ The black "sheep," says the historian Garcilaso de la Vega, i.e., the black guanaco of the Andes, was sacrificed to the sun in the following manner:²⁵

They took a black lamb for being the preferred color for sacrifices; for certain purposes the Indians got their predictions from a lamb and at other times from a ram; for other purposes they took a sterile ewe as victim. [Sacrificial ewes were always sterile, never reproductive] To sacrifice a ram, they turned its head to the east, and they did not tie its feet; it was only firmly held by three or four Indians.

Garcilaso reports a sacrifice to the sun and not to the dead; hence the sacrifice's head was turned toward the rising sun rather than in the opposite direction, as Circe instructed Odysseus for the sacrifice of Erebus (Darkness). Therefore, one observes that these necromantic instructions would be carried out in Peru with Andean "rams" and "ewes." What is most surprising is that one can still find, in Incan religious ceremonies, the same sacrificial customs that the pre-Hellenics practiced more than 3,000 years ago.

MOLY AND MOLLE

Prior to his encounter with Circe, Odysseus receives from Hermes (Argeiphontes) a plant that will become an effective antidote to the malicious effects of the sorceress' magic potion. The god plucks the plant

from the soil and, on offering it to Odysseus, shows him how to recognize it (*Odyssey*, X, 302-306):

*So spoke Argeiphontes, and he gave me the medicine,
which he picked out of the ground, and he explained the nature
of it to me. It was black at the root but with a milky flower.
The gods call it “moly.” It is hard for mortal
men to dig up, but the gods have the power to do everything.*

Here mythological poetry mentions an unknown plant which, by its purported powers, was probably highly esteemed. Moly does not appear to be a name invented by the poet; besides being related to the gods, it is emphatically described. If the name Moly is not Greek, most likely the plant was unknown in Greece. One proposes that it can be found among the assortment of magical plants and herbs used by the ancient Peruvians.

An examination of literature on plants used in ancient Peru would suggest that the “Moly” of the Greeks, which exaggerated powers were proclaimed by Homer (who declared it could prevent men from metamorphosing into pigs), is none other than the common molle (*Schinus Molle*²⁶), a tree native to Peru and commonly found in southern California, where it is known as the pepper tree.²⁷ The evergreen leaves are small and arranged like the pine tree. It has a spicy fragrance and taste, analogous to pepper; hence, the misleading California name. The peppercorn-sized fruit grows in clusters and, when ripe, is red and spherical, and has a sweetish flavor. Molle was highly valued by the ancient Peruvians; Garcilaso relates that the Indians knew the virtues of the tree’s milk and resin which they called “mulli.”²⁸ “*A thing of great admiration,*” affirms the historian, “*the [curative] effect of the milk over fresh wounds appears to work miraculously.*” Praising the plant’s curative powers claimed by the Indians, he continues: “*with the drink prepared by soaking the fruit, they cured urinary illnesses, of liver, kidneys and bladder.*” In Quechuan, words with double *l*’s, are pronounced with the stress on the *l*’s; hence, even the ancient name of this medicinal tree is no different from that cited by Homer.

I needed to verify the color of the flowers and to see if the molle’s roots were black. Wasting no time, I returned Peru in December 1982. After arriving in Lima I went to Chosica, a small village on the road climbing up the Andes, 40 km east of the capital. I remember seeing molle trees, many years ago, along the Rimac River; however, I did not pay much attention to them at the time. By a strange coincidence I arrived exactly when they were in bloom and was pleasantly surprised to verify

that, instead of red clusters, the trees were covered with small white flowers, like milk (Illus. 22). I hardly believed, then, that all these coincidences meant anything; yet, I did not consider myself enough of an authority on the subject to the point of laughing at them. That is how I decided to discover the truth, despite having to descend to the depths of Hell to find it. I started to dig up the roots of the molle tree, and found them not to be black at all, neither differing significantly from other brown roots.

While in the process of finishing this work, a notable archaeological discovery in the Mediterranean became known to me, which I found relevant to the molle tree. This aroused even greater interest in the plant and its ancient use in South America.

In the Rio de la Plata Basin, the molle tree is known as *aguaraiba*, *aguardab* or *guaribay*. In the 19th century, in Argentina's Corrientes and Entreríos provinces, and in Paraguay, there was not a person unfamiliar with the curative powers of the *guaribay*.²⁹ From its resin, leaves and branches the Jesuits of the ancient missions of Paraná and Uruguay prepared a remedy called "balsam of *guaraiba*" or "balsam of Misiones" to cure wounds, ulcers, urinary illnesses, colic, rheumatism and other diseases, which became a "universal panacea." The sweet syrup, extracted by soaking the whole seeds in water, was used to strengthen the alcoholic content of "chicha," a corn-based drink. In the Argentine Andes, molle syrup was used in the preparation of the highly popular and refreshing "aloja," a true "nectar of the gods" - above all, when the weary traveler needed to regain his strength after an arduous Andean crossing. The resin of the molle, extracted by the Indians by scoring the trunk and branches of the tree, was used in Cuzco to embalm the bodies of the Incas.³⁰ Besides the resin, the tree's branches and leaves were used by Indian magicians and witch doctors, in their magic spells and ceremonies, for which they were persecuted fiercely by the Inquisition until the 18th century. The name "molle" appeared repeatedly in the Inquisition's sentences.³¹ The comments by the 19th-century Uruguayan author of *Superstitions from La Plata River*, herein quoted, are even more surprising, in stating that the molle is "palo negro" which, in the Latin-American vernacular, means "black wood." If true, it would mean that Homer was not that far off in describing the molle, when he wrote that the roots of the "moly" were black.

The aforementioned notable archaeological discovery, in the

Mediterranean Sea, occurred at a depth of 50 m. A Canaanite cargo ship, lost more than 3,000 years ago, was found off Ulu Burun, on the Turkish coast. The remains of its cargo were recovered, in 1,984, by the marine archaeologist George F. Bass. Among other valuable articles, the cargo carried more than a hundred amphorae containing a yellow resinous substance, which appeared to be its most important cargo. The resin was later identified as an extract of *Pistacia Terebinthus var. Atlantica*, a common Eastern Mediterranean tree. The resin of this species of terebinth was discovered in Egyptian tombs, apparently used in certain, still obscure funerary rituals. In Knossos Palace, Mycenaean records were discovered noting the purchase of more than three thousand liters of terebinth resin. Another inventory, also found in Knossos, records the acquisition of 10,000 liters of resin!³² Evidently, it was of great importance, but, how does it relate to the American molle tree? The molle tree belongs to the *Anacardiaceae* family, along with the *Pistacia Terebinthus* trees, both of the genus *Schinus*,³³ Greek for the mastic tree.

The molle, like *Pistacia Terebinthus*, yielded a resin, used in Incan funerary rites. Hence, one can rightly conclude that the use of the resins of the *Anacardiaceae* species of the Old and New Worlds has a common origin in the religious and magic funerary practices of a people and civilization that succeeded in surmounting ocean barriers.

CHAPTER VI

MAMA GUACO COYA: GODDESS OF THE UNDERWORLD

*Viracochaya punchao cachunto tacachum
ñispac ñispacarischum
yllarichum ñispac nic punchao churi
yquiccta casillacta quispillacta
purichic runa rurascay quictacanchay
uncan campac Viracochaya.*

*Casilla quispilla punchao ynga runay
anami chisay quiccta quilla ricanchari
ama honcochispa amanana chispa casicta
quispicha huacoy chaspa.*

(Oration of an anonymous author sung by the priests of Cuzco during grand sacrifices to the sun).

[Cristóbal de Molina, 1575, "Las Fabulas y Ritos de los Incas en el tiempo de su Infidelidad."]

*Oration to the sun
O Creator! Thou who gave life to the Sun
and then Thou said make
night and day, make day break and clear
up; welcome in peace and take care so
that
Thou give light to men that Thou hast
created. O Creator! O Sun! who keeps in
peace
and safe, lighten men who Thou shepherd
so they won't be ill;
keep them sound and safe.*

INCAN ARCHAEOLOGY, A SCIENCE ALIENATED FROM THE TRUTH

A visit to the monumental ruins of Cuzco and the region perplexes the attentive observer, not only by the magnificent works found there, but by the explanation given by the tour guides. They state that the complex was achieved in a span of 12-13 generations by an Incan empire that emerged in the 12th century.

That affirmation, lacking any scientific basis, is nothing more

than an archaeological thesis based on a historical version of 13 governing Inca kings, gathered after the Spanish conquest and considered true as of the 16th century.

Such a thesis is difficult to sustain when facing the imposing archaeological complex of Ollantaytambo. Atop a steep hill, one finds stupendous walls, constructed of cyclopean stones that fit together with extraordinary precision (Illus. 23). Many of these gigantic blocks of granite - transported from a distant quarry - are still found laying about, inexplicably abandoned, when work came to a sudden halt. Some of these colossal blocks became legends, known as "the tired stone" or "the rock that cries." Next to the ancient cyclopean walls one can see the remains of enclosures that were constructed at a later date using a visibly inferior technique. Nevertheless, despite the enormous difference, in quality, in size of stones and the obvious superimposition of rough walls over more elaborate ones, the works were credited to the Incas.

The pre-Colombian architecture of Cuzco presents various styles known as Inca; the problem lies in the short time attributed to that civilization. The accepted history of the Incas claims that the empire of Cuzco, from its mythological origins until the Spanish conquest, in 1532, was governed by only 13 Inca kings, over a period spanning no more than four hundred years. The most serious error of this "true history" is that the magnificent stone constructions were subjected to a "historical" scheme and, therefore, automatically encased in that period. Incredible as it may seem, physical reality became subordinate to a historical scheme! Those sustaining the great lie would have to demonstrate how the Incan rulers - governing one of the most conservative nations in the world - managed to construct, in a mere four centuries, cities, astronomical observatories, temples, fortresses and thousands of kilometers of roads, as well as invent a religion, myths and a language that is spoken to this day from Bolivia to Ecuador.

In order to hide inconvenient evidence, that would make the "true history" indefensible, serious archaeological violations were perpetrated, one of them well within the center of Cuzco, in Hatunrumiyoc-huasi Palace, now the Cuzco Archdiocese Art Museum (Illus. 24). Here, on the eastern side of the palace, a 90-cm thick Incan wall, measuring 5 meters in length and 4 m in height, was destroyed. This wall covered a much older one constructed with massive polygonal stones, laid with a high degree of precision, using the same techniques as at

Ollantaytambo. The former wall, which was destroyed in the 1950's, belonged to a type of Incan wall known as cellular, constructed rudely using small hexagonal stones (Fig. VI-1). The cyclopean wall, that was overlaid by the cellular one, was considered pre-Incan by some Cuzco archaeologists.¹ The eliminated evidence was the last fragment of an Incan wall that apparently covered the entire palace. When and why did the Incas hide Hatun-rumiyoc-huasi ("the house of large stone") Palace? The palace might be millennia-old, as sustained by some Cuzco archaeologists, and the Incas might have covered it in order to protect it, out of profound respect or adoration, or to avoid its desecration by savage hordes, at a time when the sacred city was under threat of invasion. Whatever the reason, the ancient polygonal wall was preserved by the Incas for posterity.

Cuzco's enigmatic cyclopean walls are excellent indicators of intelligence. It can be said that they produce a level of curiosity proportional to the intellectual coefficient of those who observe them. They disconcert and fascinate. Nevertheless, the more one delves into details of their construction, the more difficult it becomes to understand the technique used to achieve it.

The archaeologist A. Hyatt Verrill sums up brilliantly the technical implications of the construction of these enigmatic pre-Colombian walls: it was effected by an unknown race prior to the Incas.² Verrill states:

"Nowhere else in all the world are there such amazing and inexplicable examples of masonry as are to be found in the pre-Incan ruins about Cuzco, near Lake Titicaca, and elsewhere in the Andean regions of Peru and Bolivia."

"Moreover, it is an absolutely unique form of masonry and does not even remotely resemble the stonework of any other known race.³ This, in itself, would go far toward proving that the people who erected these cyclopean walls and buildings were of an unknown race. Such an entirely distinct type of building is not evolved nor invented all at once. Stranger yet, as far as is known, there are no remains showing traces of an archaic or evolutionary form of this masonry, as would most certainly have been the case had the art been developed in the district. No cement or mortar was used in this type of construction, and none was needed.



Figure VI- 1. Incan wall covering an ancient cyclopean wall, before being demolished by archaeologists. Situated on the eastern side of Hatumrumiyoc Palace, Cuzco (Photo taken prior to this archaeological crime, and copied from Old Civilization of the New World, by A. Hyatt, p. 298).

The enormous blocks of stone, sometimes weighing more than twenty tons, were cut, faced and fitted so perfectly than even today, after the lapse of countless centuries, it is impossible to insert a six-thousandth of an inch gauge between the stones [noting that Verrill does not refer here to the stones of the first cyclopean wall of Sacsahuaman, one of which - with 11 sides - measures more than 60 cubic meters and weighs more than 150 tons]. No two blocks are alike in shape or size, but each is most accurately fitted to those about it. No expert modern mechanic, working with steel tools, the most highly perfected machines, and micrometer gauges, could produce results in metal more minutely accurate.⁴ The structures, and each individual block of stone to be used in them, must have been planned and laid out beforehand. It would have been impossible to have fitted the blocks as the artisans proceeded with their labors. No sane man can believe that a twenty-ton stone was pecked here and there, dropped into position, hoisted out and trued and cut over and over again, until a perfect fit was obtained. Even if we can imagine such endless herculean labor being performed, it would have been impossible in many cases owing to the fact that the stones are locked or dovetailed together. Although some of the stones are fairly square or rectangular and with six faces, many are irregular in form, and some have as many as thirty-two angles. The only way in which such complex forms could have

been fitted with such incredible accuracy was by cutting each block to extremely fine measurements, or by means of a template, a process which would indicate that these prehistoric people possessed a most thorough and advanced knowledge of engineering and the higher mathematics. Evidently, too, the construction of these stupendous walls was neither very difficult nor very expensive, for they are everywhere in and about Cuzco and its vicinity, and often where a roughly built wall would have served every purpose. In nearly every case they slope slightly inward toward the top, and rarely do they show any sign of ornamental or decorative work. So strong and enduring are these structures that the Dons (Spaniards), despite their utmost efforts, found it impossible to tear them down, so they made the best of the matter by erecting their own buildings within or upon the ancient walls. For this reason the finest examples are still preserved, although often concealed by cheap stucco or masonry."

"Ordinarily all of these walls and buildings are referred to as Incan, but, in reality, the true Incan masonry was of an inferior type. The stones used were much smaller than those used by the pre-Incans, they were more carelessly and loosely fitted together, and not infrequently mortar or cement was used between them. In many places the later Incans' work covers the ancient masonry of their predecessors and, in such cases, where a portion of the more recent masonry has been removed, the contrast between the two types is very striking."

MYTHOLOGICAL TRADITIONS ON THE ORIGIN OF THE INCAS

The Incas of the 16th century did not know the written word. They preserved, however, their historical annals and ancient traditions utilizing quipus, a mnemonic system consisting of cords and knots, in which the colors of thread and the types of knots preserved information. The quipus remained in the care of the *quipucamayos* until the conquest of Peru. This rich trove of information was destroyed by the Spanish invaders, an act of barbarism comparable to the destruction of great libraries, causing irreparable damage to world culture.

The chroniclers and historians who deal with the origin of the Incas, based on the information of the *quipucamayos* and of certain painted tablets preserved in Cuzco, report that the empire's capital was founded by four couples, the Ayar brothers - Ayar Manco or Manco Capac, Ayar Cachi, Ayar Auca and Ayar Uchu - and their four sisters - Mama Guaco,

Mama Cora, Mama Ocello and Mama Rahua. They were foreigners who had come to Cuzco from a cave called Tamputocco. There are variants to this myth, their names and numbers differing, as well as placing their origin at Lake Titicaca.

Mama Guaco stands out among them, described as an authoritarian woman of fierce character; seconded by brother Manco Capac, who is also described as cruel. Due to a series of incidents along the way, only Manco Capac and his four sisters arrived in Cuzco. As an emblem of power they carried a species of falcon called Hindi. The sinking of a gold staff, of about a cubit in length and an inch in diameter, on Huanacauri Hill, was the appropriate omen for choosing the settlement, indicating the fertility of the soil. Climbing to the summit of Huanacauri, from where the prominent fertile valley of Cuzco can be seen below, Manco Capac hurled his sling toward the four corners of the world and laid claim to the land.

THE “TRUE HISTORY OF THE INCAS” CONCEALS AN ANCIENT EMPIRE

The most romantic accepted history of the Incas was written in Lisbon, in 1609, by the Cuzco-born historian Garcilaso de la Vega, the son of a Spanish captain of the same name, who took part in the conquest of Peru, and an Incan princess, Doña Isabel Palla Huailas Ñusta.

Garcilaso states that his Incan uncle told him that, before the Ayars founded Cuzco, the valley was a wild place inhabited by animal-like savages, who roamed naked in the valley and who lived in caves and grottoes. When he asked how long ago that was, the Incan replied that Cuzco was founded a long time ago and that no one kept records of the elapsed time.⁵ Further on, ignoring the prudent declarations of his uncle, Garcilaso states that the Incan empire was founded in Cuzco by Manco Capac, four centuries prior to its conquest by the Spaniards.

Actually, Garcilaso was not original nor was he concerned with the truth in his historical account of the Incas. He created it from the unpublished manuscript of Father Blas Valera, distorting the chronology - just as the distinguished Americanist, Manuel González de la Rosa, claims in his study, published in 1908 - and simply opted for the more convenient version, which was accepted by the conquistadors.⁶

Meanwhile, other versions claim the Incan empire to be older,

mentioning cosmogonic and eschatological traditions that recall a deluge, apparently the same as described in Genesis. These versions created a serious embarrassment for interpreters of sacred scriptures, reason for which they were all repressed, except for a few that were hastily written in the 17th century. One of these, written in 1630 by Friar Buenaventura de Salinas e Cordova, plagiarized the work of the Indian chronicler, Don Felipe Guamán Poma de Ayala, whose manuscript was discovered in the Royal Library of Copenhagen, in 1908, by Richard Pietschmann. The most important version was written by the Jesuit Fernando de Montesinos, in 1646,⁷ based on the manuscript of an unknown author (identified as Blas Valera by Manuel González de la Rosa). In this last version, Montesinos makes the Incas descendants of Ophir, a great-great-great-great-grandson of Noah. Whatever the obviously Spanish ingredients, this version relied on legitimate pre-Colombian sources, transmitted by the *quipucamayos* to Blas Valera, wherein he succinctly describes the major events and chronology of an empire, with Cuzco as its capital, and ruled by a hundred and one Inca kings!

Was Cuzco the capital of an empire of only thirteen Incas as Garcilaso asserts or were there more than a hundred? Is Garcilaso's version true, as claimed until now, or does it only refer to the last dynasty of kings, mixing mythological elements with the traditions of prior dynasties? Among the two versions, one is inevitably false; to expose it, one must consult archaeological evidence, searching for signs that indicate the first migration of a civilized people, coming from the direction of the rising sun or from south of Cuzco.

ARCHAEOLOGY UNMasks THE FALSE HISTORY OF THE INCAS

In 1988, the archaeologist Manuel Chávez Ballón showed me the results of archaeological excavations undertaken in Marcavalle, about 4 km south of Cuzco, by fellow archaeologist Karen Lynne Mohr Chávez, his daughter-in-law. Radiocarbon dating of the finds showed that, at least since 1400 B.C., the Cuzco valley had been inhabited uninterruptedly by an agricultural and pastoral society. The objects retrieved from the digs reveal that since those remote times, the valley's inhabitants lived in modest adobe dwellings, in the company of dogs and tending llama herds. Their food was varied, based on agriculture, domesticated animals and game. They knew the art of soil cultivation, growing beans, corn and,

possibly, potatoes. They cooked their food and ate on ceramic bowls decorated with geometric designs.⁸

From the Marcavalle archaeological study, one can conclude that the “savages” portrayed by Garcilaso surely did not live in the 12th century; hence, his history of the Incas is unfounded.

TAMPUTOCCO AND PACCARITAMBO

Tamputocco and Paccaritambo are considered the cradle and Inn of Origin, respectively, of the millennial Inca empire (some chroniclers simply confuse them). The location of Tamputocco, a cave considered by the Incas as the Holy See from where Cuzco’s founders emerged, as well as the myths about it, deserves closer attention.

According to Fernando de Montesinos’ history of the Incas, during the reign of Titu Yupanqui Pachacuti, the sixty-second Inca king, Cuzco was devastated by a number of calamities, particularly frequent earthquakes that toppled many buildings. Various comets and abnormal events were seen in the sky as well; the terror-stricken inhabitants abandoned their properties and fled Cuzco. At the same time, a number of barbaric peoples invaded and, worse, the Inca king was besieged and killed in a bloody battle against the invaders. His body was transported to Tamputocco and buried in a secret place. According to the chronology of Inca kings, this occurred during the Fourth Sun since the creation of the world, which Montesinos places at the beginning of the Christian Era. After these events, the Inca monarchy was lost for 400 years and, except for the priests who continued to guard the temples, Cuzco became a ghost town. The royal family and their descendants fled to Tamputocco⁹ for safety.

Montesinos states that Tamputocco was always considered a sanctuary and refuge to the Incas, safe from earthquakes and pestilence. Does a cave really exist in Tamputocco? Where is this magical place, so coveted by the Inca kings?

Pedro Sarmiento de Gamboa’s history of the Incas, written in 1572, is one of the best documented sources on the mythological origins of the Incas.¹⁰ He states that Paccaritambo - “house of production” - is located 6 Spanish leagues (approximately 33 km on foot) south of Cuzco; Tamputocco - “house of windows” - is also found there. In fact, he continues, Tamputocco’s rock has three windows (or caves) (Fig. VI-2).

From the larger one, called Capac-Tocco, the Ayar brothers emerged to take possession of the land, on the order of Tiki Viracocha, the Creator.

The Jesuit Bernabe Cobo, who dedicated a good part of his life to the study of Peruvian antiquities, describes Paccaritambo at the beginning of the 17th century as an Incan village in ruins. He specifically mentions the remains of a grandiose palace and temple.¹¹ His observations agree

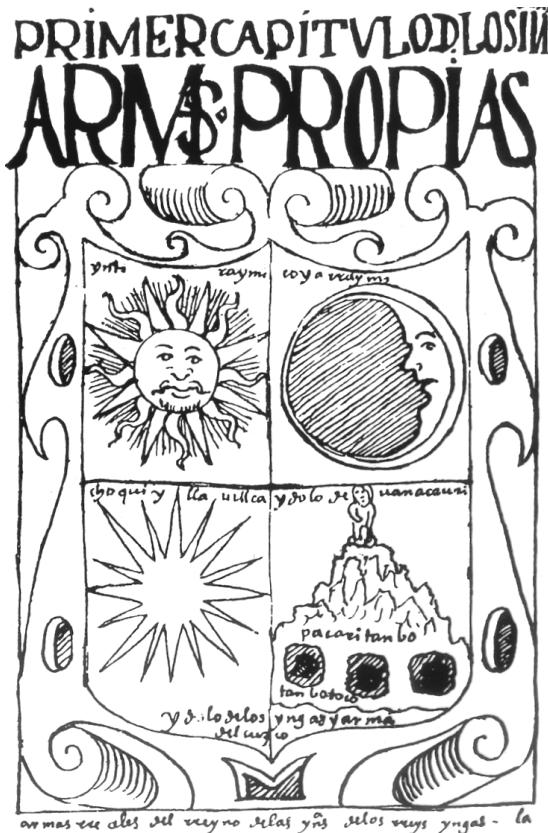


Figure VI- 2. Drawing of a coat of arms reuniting the principal idols adored by the Incas, with a representation of the craggy promontory of Tamputocco (page 62 of the illustrated chronicle of Guamán Poma Ayala, 17th century).

perfectly with the great antiquity attributed to Paccaritambo in Montesinos' history of the Incas. One can still see the ruined walls of the ancient palace and the main temple, the same image which Cobo described 400 years ago (Fig. VI-3).

The locations of Paccaritambo and Tamputocco were determined from archaeological research undertaken in 1945 by the archaeologist Luis Pardo, who identified them with the ruins of Maucallacta, and with the craggy promontory of Pumauroco, found about 20 km due south of Cuzco, in Paruro Province (Map 1). Nowhere else within the radius and in the direction described by the chroniclers - says the archaeologist - does one find a group of ruins more important than those of Maucallacta, which means "village in ruins"¹² in the native language.



Figure VI- 3. View of the lateral wall of the main temple of Paccaritambo, viewed from its façade, foreground, which is completely open toward the rising sun.

AUTHOR'S JOURNEY TO THE VALLEY OF DAWN

I arrived in Cuzco on Saturday morning, January 23, 1988. Thanks to a series of lucky events, a dream finally came true three days later: I visited the mysterious "Valley of Dawn," which the chroniclers referred to as a legendary place from which the Incas emerged, and began their journey to found Cuzco. The reason for my enthusiasm was not only to verify if Incan legends are based on true events; I was searching for the ancient lost link which the people of the Andes maintained with those of the Mediterranean, and everything pointed to legendary Paccaritambo.

I left Cuzco at 5:40 a.m., Tuesday morning, and, four hours later arrived in the colonial village of Paccaritambo, in Paruro Province. Despite the same name, the village has no relation to the legendary place mentioned in the indigenous traditions of the 16th and 17th centuries. The Incan Paccaritambo, according to Luis Pardo's studies, lay in a valley 7 km due north of the present village.¹³

After a brief stop, in this picturesque place, to hire the guide Domingo Mamani, we headed for Pumaorco and Maucallacta, the modern-day names of Tamputocco and Paccaritambo, according to Pardo.

Thanks to my skillful driver, Manuel, our pickup was able to negotiate the road, made slippery and muddy by the rainy season, leading to the far end of a wide plateau, near the cemetery of an old property, called Rumiticte. It was 11:00 a.m. when we began to descend northward, along the gorge leading to the small village of Mollebamba. Manuel preferred to wait in the pickup, while I descended the narrow gorge, observing the deep valley slow unveiling before me. On my left, tiny Mollebamba's jumble of houses appeared on a hillside, lightly descending north toward the Huaynacancha Gorge.

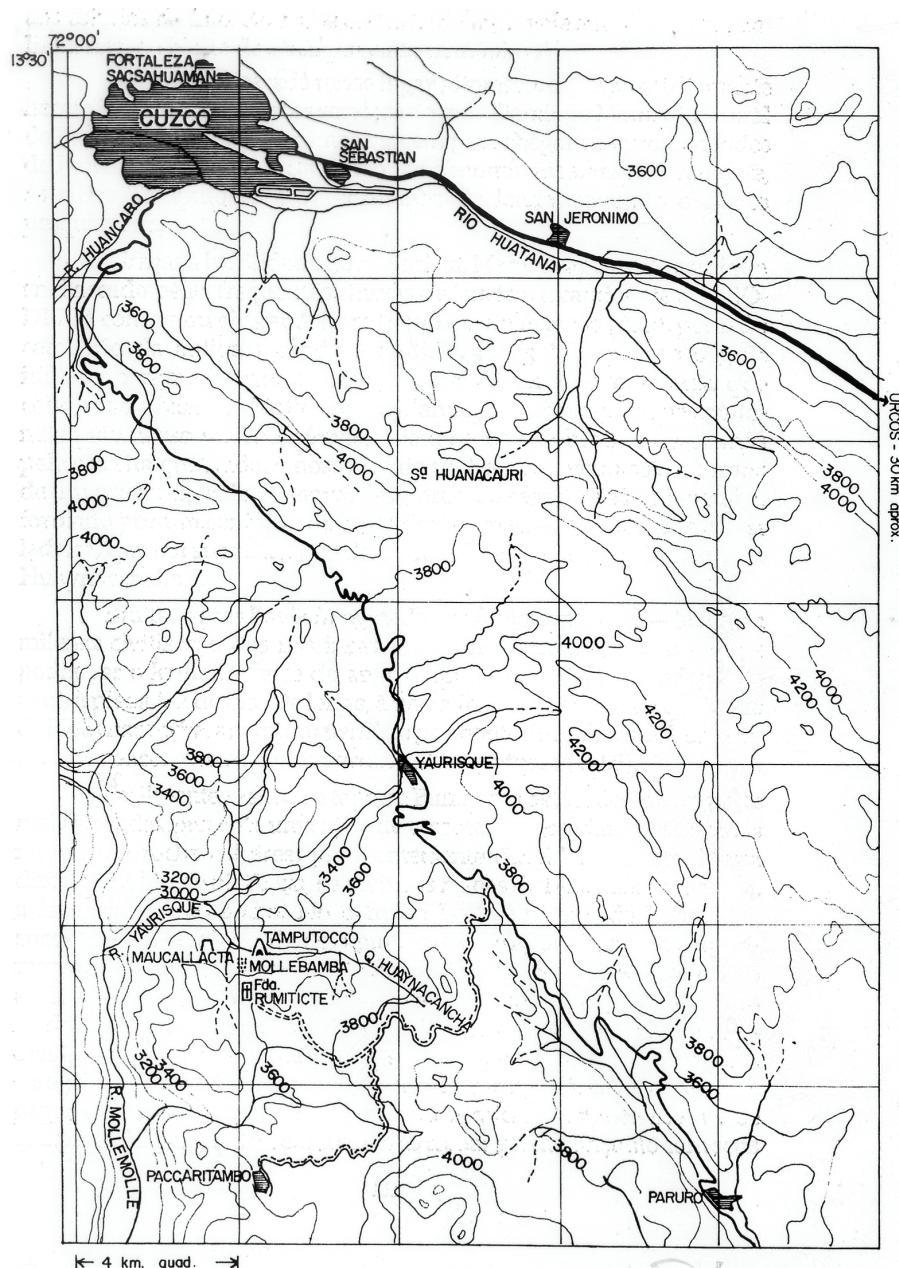
I had often thought about the refuge/sanctuary/cradle of the Inca kings and their empire. Now, there I was, finally seeing the legendary "Valley of Dawn" under a deep blue sky in broad daylight. Far ahead, at the bottom of the Huaynacancha Gorge, appeared the outline of the rocky Pumaorco Promontory - where the famous Tamputocco cave lies (Illus. 25).

One can easily climb to the top of the promontory, along the south side. At the top is a series of seats or steps carved in limestone, leading west. About 2 km away in that direction, one can make out the

ruins of Maucallacta, i.e., the legendary Paccaritambo. On the eastern tip of Pumauroco are two badly worn reclining headless stone pumas, about 50 cm in length. It appears that the sculptor wanted to show a cub resting on its mother's back. It is clear that Pumauroco gets its name from the stone pumas, since "urco" means promontory or hill in Quechuan. The local inhabitants did not conserve the important role this valley held in Incan traditions, so it is understandable that the rock and the ruins lost their original names and significance; the sculpted remains of the two pumas gave the crag the name Pumauroco. Descending northward around the crag on the eastern side, one finds a throne hewn out of the rock, in front of which are the ruined stone walls of two enclosures of Incan cellular construction. In the roughly 5-m space, between the throne and the ruins, lies an underground entrance blocked by rubble. On the same side of the crag, a short distance from the throne, one finds the first "tocco," meaning a shelter in the rock, a "cave" or a "window" in Quechuan. Continuing up the crag, there is a second "tocco," which bears carved grooves on the lower side directly at the entrance. These "tocco" are actually the voids left by the enormous boulders that broke away from the crag. To reach the third, and largest "tocco" which, due to its size, can be easily identify as "Capac-Tocco," one crosses a narrow corridor created between the crag and one of the boulders that forms the side walls of the cave.

One of the main purposes of my trip to Tamputocco was to verify the appearance of the cave (Illus. 27). On seeing it, I confirmed that, in fact, it was similar to Zeus' cave, on the island of Crete, where they say the god was born (Illus. 28).

At 2:00 p.m., I left Tamputocco and headed for the ruins on the other side of the valley, on the slopes of a mountain. After an hour's walk, passing through Mollebamba and crossing two ravines, I arrived in Maucallacta. The visit to this archaeological site was very short. It was already 3:00 p.m. when I arrived, and I remembered I had to be back by 5:00 p.m. I arrived on the right side of this small Incan village, on the same level as the ancient path that passes in front of the imposing edifices, where the stone porticoes and part of the walls of the principal temple still stand. The eastern side of this temple is completely open toward Tamputocco (Fig. VI-3).



Historians are divided as to the significance of the name Paccaritampu or Paccaritambo. Some declare that it means “house of production,” others claim it is the “beginning” or “the resting place of dawn.” The Quechuan dictionary by Jorge Lira favors the last two meanings, because *paccaric* refers to dawn; *paccarin* to morning, the first twelve hours of day; *paccariy* to daybreak, the initial moment of day, the act of appearing. Therefore, *Paccaric-Tambo* means literally “encampment of dawn.”

The motives that led the profoundly religious Incas to build this citadel are quite evident. All the paths crossing the main route are orientated towards Tamputocco (Illus. 26). The main temple was also open towards the sunrise and even the meaning of the citadel, “the resting place of dawn,” is telling. There is not the slightest doubt that Paccaritambo was constructed as an eternal monument to the sun and to the origin of the founders. Was it not from this cave that the founders of the greatest pre-Colombian empire emerged?

A brief rest on the large grassy plaza in front of the main temple, and a frugal meal, helped me regain my strength. In the valley, below, a small crystalline stream was just emerging from a spring. I could not imagine a landscape more beautiful than the one at my feet. The abundance of yellow-blossomed retamas (*Spartium junceum L.*) made the scene enchanting and imbued the air with its sweet fragrance. The fragrant munha (*Minthostachis setosa*), which smells like peppermint, sprouted like grass in every nook and cranny. I took some leaves and crushed them between my fingers to intensify the aroma they imparted. Looking down into the beautiful valley it was not all that difficult to imagine the magnificent spectacle of ancient Tamputocco at dawn, shining intensely when the sun’s rays struck the carved seats - most likely sheathed with gold plates in pre-Colombian times.

I spent at least half an hour in such reverie, when a flash of lightning followed by a roar of thunder roused me from my thoughts. The setting changed suddenly, the sky turned dark, and like curtains that fall at the end of a show, a hailstorm descended from the sky. Ice and rain began to pound on me. I left hurriedly, before the gorges became impassable. I climbed the hillsides, for more than two hours, being forced to make a detour to avoid the torrents which, like the heads of a Hydra, meandered along the bottom of the gorges. Soaked to the bone, I finally emerged from the previously benevolent valley, and reached the pickup where Manuel had patiently waited for seven hours.

PRE-HELLENIC LANGUAGE OF THE INCA KINGS?

The possibility of transoceanic contacts and the diffusion of knowledge between the Old World and America in proto-historic times, was always a topic of passionate debate. A noteworthy attempt, that sustains these contacts based on linguistic evidence, was made by the Uruguayan philologist Vicente Fidel Lopez who, in 1871, published his results in a book entitled *Les Races Aryennes du Perou*. This book, written in French, presents various coincidences between Quechuan and Greek words, which he attributes to the presence of the Pelasgians in pre-Colombian Peru. The Pelasgians, also called Argives or Achaeans, lived in Greece during mythological times.¹⁴

One must stress that at least some of the linguistic coincidences presented in this book are not necessarily fortuitous, as some specialists pointed out, thus avoiding the matter. Therefore, why was Vicente's discovery not taken seriously? A great majority of Americanists in this century opted for the convergence theory, which *a priori* excluded all possibility of contacts between America and the Old World in proto-historic times. Through the convergence theory, any similarity in architecture, art, customs, religion, language, etc., found in pre-Colombian cultures, *ipso facto*, was considered the result of a spontaneous production of similar ideas, independently invented by the human mind. Besides being unscientific, this attitude has seriously confused those who study societal behavior throughout history. These, basing themselves on innumerable "coincidences" presented by specialists, postulated the existence of an imaginary mechanism called the "Collective Unconscious" by Carl Gustav Jung which, at least in theory, accounts for all these amazing coincidences, including the mythic themes, that often present the same pattern in the most remote places of the world.

Some historians, referring to pre-Columbian traditions, affirm that in ancient Peru there was a divine "idiom" or language, exclusively spoken within the restricted circle of the imperial family,¹⁵ but which was lost long before the Spanish conquest. The present thesis suggests that the lost Incan idiom, over thousands of years, could have been founded with the common language called Quechuan or *runa-simi*, which means the "speech of man." Could it have arisen from the language spoken by the Achaeans, or by the ancient navigators of Crete?

In order to show that this possibility is worthy of consideration, a table is included in Appendix I, extracted, corrected and expanded from

the Ario-Quechuan glossary by Vicente Fidel Lopez, and demonstrating that some Greek and Quechuan expressions could have the same origin.

A GLIMPSE INTO THE DARKNESS OF THE UNDERWORLD

Archaeological studies initiated in 1981 led me to the surprising conclusion that the roots of Greek mythology regarding the Underworld could be in South America. An appreciable body of evidence gathered in favor of this hypothesis began to shed a little light on the darkness of the Underworld.

The mythical Underworld, called Hades or Tartarus - which the Greeks of antiquity believed to be Hell - would have its origin in the knowledge of and transoceanic contacts with South America, particularly the Andean region of Peru, which appears to have been frequently visited during the second millennium B.C. by Minoans, Achaeans and Cretomycenaeans.

Naval contacts between America and the Mediterranean probably ceased or became extremely rare after the first millennium B.C. The Greek poets, who immortalized the deeds of the pre-Hellenic navigators, starting from the 9th century B.C., believed that souls went to these remote places, situated toward the western extremities of the earth or below it, and that, eventually, some heroes could have also visited these places in life, after crossing the deep ocean.

The lord of the Underworld was called Hades or Pluto. According to Greek myth, the brothers Minos and Rhadamanthys, sons of Zeus and born on the island of Crete, were judges of Hades. Along with Persephone, other notable figures, such as Demeter and Core, were considered goddesses of the Underworld.

From a strictly rational point of view, the Greek myths appear to be inventions of poets, the result of pure fancy. Nevertheless, by analyzing history and Greek archaeology, one perceives that mythological figures were highly respected by the pre-Hellenes. For reasons that escape all rational thought, Demeter and Core - goddesses of the Underworld - were respected religious figures of the Greeks. Mythologists did not hide their perplexity with the incredible tale of an Underworld goddess, associated with agriculture and having a child by Zeus, called variously Iacchos, Iasion, Brimos or Plutus, and sometimes identified with Dionysus or Bacchus. Iacchos, along with Demeter and Core, formed a

triad of deities that were invoked in the Eleusinian mysteries, which best-known center was near Athens.

The Romans called Demeter by the name of Ceres, the goddess of agriculture. Her cult had always an orgiastic character. It was said that she married a son of Jupiter and from this union the god of wealth, Plutus, was engendered. Ceres traveled extensively throughout the world in the company of Bacchus, teaching mankind the cultivation of cereals and the virtues of medicinal plants. Demeter was represented with serpents coiled around her arms, holding cereals and poppies in her hands, which symbolized the Underworld, food and medicine (Fig. VI-4). These representations appear to confirm her name, which means “Mother Earth” in Greek.



Figure VI- 4. Demeter with her symbols: serpents, cereals and poppies (National Roman Museum, Rome).

The oldest representations of Demeter bearing these symbols are found in Cretan art, in figures of a beautiful woman with full, exposed bosoms and a long skirt (Fig. VI-5). This priestess or goddess holds two serpents or poppy flowers in her hands (Fig. VI-6). At times, she is represented seated

on a boat transporting a tree, the symbol of life and fertility (Fig. VI-7). At others, she is accompanied by three other deities in a field of flowers, forming a quartet, like the four sisters who founded Cuzco (Fig. VI-8).



Figure VI- 5. Minoan goddess with serpents
(Knossos, circa 1,500 B.C.), herein identified as Demeter.

The Cretans considered caves and grottoes to be sacred places, natural temples where men and gods could find protection from mother earth. To prevent the recently born Zeus from being devoured by his father, Cronos, the baby was hidden in a cave, known as *Diktion Antron*, or the



Figure VI- 6. Gold ring found at Knossos (circa 1,500 B.C.), representing a religious scene of goddesses, with flowers and poppies around a tree.



Figure VI- 7. Stamp of a gold ring, found at Mochlos, Crete (circa 1,500 B.C.), representing a goddess transporting a tree on a boat.



Figure VI- 8. Gold ring (Knossos, circa 1,500 B.C.) with four highly stylized goddesses, suggesting a dance.

Diktaean Cave, near the village of Psykhró, on Crete's Lasithi Plateau. There, Zeus was suckled either by the goat Amalthea or by the daughter of Melissus, called Amalthea.

According to Hesiod, Demeter was seduced by the Cretan hunter Iasion, in a thrice-plowed field in Crete, the union resulting in the birth of beneficent Plutus, who later became the symbol of prosperity and wealth. Demeter's son, Plutus or Iacchos, like Zeus, had a nurse called Baubo, who breast-fed him through infancy. Some authors identify him as the Cretan Zagreus, husband of Demeter and, finally, as the son of Dionysus. This confusion between father and son is quite frequent in mythological genealogies.¹⁶

MAMA GUACO COYA, DIVINE GODDESS OF THE UNDERWORLD

There is a close analogy between the Eleusinian mysteries in Attica - where Demeter was celebrated - and the most important religious commemoration of Cuzco, called *Situa* or *Coya-Raimi* by the Incas, which means "The Queen's Feast." *Situa* coincides exactly with the Greek epithet of Demeter in Syracuse:¹⁷ Σιτω or Σιτους (*Sito* or *Situs*), which means, literally, "Goddess of Cereal" or "Goddess of Alimentation." In some regions along the Mediterranean Sea, the goddess of agriculture was called *Acca*. Also, in Attica she was called Demeter *Akhea* (Demeter *Αχαία*) or, rather, "Mother *Akhea*."¹⁸ In the Italian peninsula there was an ancient goddess of the earth known as *Acca Larentia* or *Laurentia*.¹⁹

The Ayars, who founded the Incan empire, were associated with a chenopodiaceous plant called *ayara* (a wild quinoa having dark-grained seeds, known as pigweed - *Chenopodium quinoa* - and widely used as a cereal in Peru). So much so that some bore the names of condiments, such as Ayar-Cachi (wild quinoa-salt) or Ayar-Uchu (wild quinoa-chili).²⁰ The Peruvian *ayara* might be related to the Greek *aira* plant. According to Ruch et al,²¹ hallucinogenic and reputedly poisonous substances, produced from bearded darnel (*Lolium temulentum L.*) - called *aira* (*αἴρα*) in Greek - were ingested during the Eleusinian mysteries. According to the Greek philosopher and natural scientist, Theophrastus (c. 371-287 B.C.), in his *Historia Plantarum* (*Inquiry into Plants*), *aira* was a wild species of cereal from which barley and wheat evolved.²²

One of the Ayar sisters, Mama-Occllo means "Mother-Fecund."

According to some traditions, it was with this sister that Manco Capac had a son. Ayar-Auca is described as a warrior and his name effectively corresponds to the Quechuan *auca*, which means “enemy,” “adversary” or “rival,” and appears to have a common origin with the Greek αυχαλεος (*auchaleos*), meaning “glorious,” “ferocious” and “haughty,” and αυχη (*auche*), meaning “proud.”

Core, the daughter of Demeter, could be easily identified with Mama Cora who, according to some Peruvian traditions, appears as Mama Guaco’s sister, daughter or granddaughter. In Cuzco, she even has the same Greek name!

One reaches the surprising conclusion that the ancient city of the Incas could have been founded by the goddess of the Underworld and agriculture, identified as Demeter, or Mother Acca. This is reinforced by the ancient name of the Incan capital. At least two chroniclers of the Incas state that Cuzco’s original name was *Acca-Mama*, i.e., the city of “Mother-Acca.”^{23, 24} Mama-Guaco was considered the benefactress of agriculture, for having originally introduced corn to Cuzco; hence, a celebration was held in April in her honor, on the outskirts of the town of Sahuasiray.²⁵ Moreover, the Quechuan word *Akka* (written *Aca* by Spanish chroniclers) is related to Cuzco’s founder and the goddess of cereals, by way of a corn-based fermented beverage introduced by Mama Guaco. *Akka* is synonymous to “chicha,” an alcoholic beverage obtained by fermenting corn.

Not only was Cuzco associated with the name of the goddess Akka, but also a great part of Greece, north of Peloponnesus, was known as *Aχαια* (*Akhaia*), a name related to cereals. In Greece, as well as in Cuzco, her name is associated with cereals, such as in the word αχαινη (*Akhenei*), a type of wheat bread used in the Eleusinian festivals (Thesmophorias), celebrated in honor of Demeter, and in the word αχανη (*Akhani*), a unit of measure for wheat.

Obviously, this leads one to question the meaning of the phoneme *Guaco*, the name which Demeter appears to bear as founder of the Inca empire. *Guaco* is a Spanish corruption of the Quechuan *Wako* or *Waku* and, according to Lira’s Quechuan dictionary, it has two possible meanings:²⁶ 1. Object of ceramic, stone or gold, etc., found in pre-Colombian graves in Peru; and 2. A plant bearing white flowers of nauseating odor used by ancient Peruvians against venomous snake bites.

As several names of the Ayar brothers have ethno-botanic connotations, the first meaning can be eliminated and one can concentrate on the implications of this name with the *Wako* plant or “Guaco,” as it is called in Spanish. Some authors believe that the alexipharmac properties of “guaco” (*Mikania Guaco*) were discovered by a Negro, who explained them to the artist of the Mutis botanical expedition in the late 18th century, in New Granada, present-day Colombia. The Negro had seen a bird called “guaco” survive a snake bite, after treating itself with the leaves of this plant. What is most surprising in the story is not the power attributed to the leaves, but that such a tall tale was accepted by science as an example of discovering the curative powers of plants by man, through the observance of animal behavior.²⁷ Further on, the same author cites two instances of the use of “guaco” as an antidote by American natives: first, mentioning the medicinal plants of the Mayan herbalists (and still used today by the Chorti Indians²⁸) and second, mentioning the native plants of the Incas, in Peru.²⁹ But he makes no mention how the Chortis or the Incas of Cuzco came to know the story told by the Negro.

The “guaco” in question is a species classified as *Mikania Micrantha* H.B.K., native to the Urubamba Valley, through which the sacred river of the Incas passes. It is also found in Machu Picchu, at 2,400 m altitude. The natives knew of its effectiveness against snakebites and called it *wako* - which the Spaniards called “guaco” or “huaco.”³⁰

When the German naturalist Alexander of Humboldt was in Peru in the beginning of the 19th century he learned about the properties which the Indians attributed to the “guaco” of Urubamba. To explain its effects, he presumed that the snakes were driven away by the odor these plants emitted.³¹

The Tupi Indians from Misiones Province knew another medicinal plant, the “isipo-payé,” or, the “bewitching-liane.” This plant is also known in Brazil as “cipó-mil-homens” (“thousand-men-liane”), named thus by the Portuguese because of its excellence in curing snakebites.³² The “guaco’s” antidotal properties, as well as those of similar plants, were widely known throughout South America, and probably date back to ancient times.

Summing up, one can infer that Mama Guaco is related to the “guaco” plant, and its medicinal use dates from the founders of Cuzco. Archaeologists have not yet found in Peru the representations of a goddess manipulating serpents, which could suggest Mama Guaco;

however, she can be identified in Cretan and Roman archaeological figures, previously related to Demeter.

According to ancient traditions, the founders of the Incan empire appeared suddenly on the Andean stage. The figure who stood out most, frightening the natives, was precisely Mama Guaco. She invaded the land of the Guayllas Indians, in the Cuzco region, and was extremely cruel. Traditions relate that she tore a Guayllan Indian apart with her bare hands; she then proceeded to rip out his palpitating heart and lungs from his chest, taking them into her mouth. Betanzos describes Mama Guaco as inflating the ripped out lungs with her mouth.³³ The episode maintained by Peruvian tradition allows one to deduce that Mama Guaco was a priestess who practiced necromancy.

The sinister art of divining the future by reading human viscera was practiced in Asia Minor and in the Mediterranean region, as verified in sculptures representing lungs and livers, at Allah (in Syria) and in Ras Shamra, respectively. According to the 3rd-century B.C. Greek philosopher Jamblichus, this power was attributed to demons or spirits who acted on the organ tissues, changing their constitution in the act of immolation; by noting these changes, one could see the future. Father Peter Crisologo explains that some thought that human viscera could “talk” more wisely than those of animals.³⁴

Minoan archaeology recently confirmed that the island of Crete was also a site of human sacrifices, with the participation of women.³⁵ Archaeological excavations uncovered four human skeletons from a Cretan temple, destroyed by earthquake and fire, that were involved in human sacrifice: alongside the young male victim, was a priest and a priestess; an attendant was found in an adjoining room, crushed under the fallen roof.³⁶

Prophesying through the observance of human lungs, attributed to Mama Guaco, could have been introduced in ancient times by people who were skilled in such arts. Necromancy was practiced in Cuzco by priests until the Spanish conquest. Cristóbal de Molina reports in his book *Report of Fables and Rituals of the Incas*, written in 1,575, that in commemorations of Coya-Raimi, i.e., “Celebrations of the Queen,” a great number of white llamas were sacrificed, their blood mixed with flour to form a preparation called *Sanco*, while their lungs were ripped out and inflated, seeking signs that could foretell the future.³⁷

The Indian chronicler Guamán Poma de Ayala, a native of Ayacucho and descendent of the Chanca race - traditional enemies of Cuzco - had access to different sources of the Incas' imperial annals. He states that Manco Capac and Mama Guaco were not of divine origin, as assumed by the Incas, who claimed to be sons of the Sun.³⁸ Manco Capac, the first Inca, and son of Mama Guaco, had an unknown father; hence, it was said he was the son of the Sun. He also confirms the aforementioned supposition that Mama Guaco was a priestess and describes her irreverently in these terms: *"They said that this lady was a deceiver, idolater and a witch; who communicated with demons and who could converse with stones, trees, cliffs, hills and lakes. She was the first and most famous inventor of guacas.³⁹ Deceivingly she frightened and dominated the primitive people of Cuzco. Initially she was called 'Mama,' then 'Mama Guaco' and, after marrying her son and becoming a queen, she was called Mama Guaco Coya."*

Guamán Poma de Ayala mentions other surprising details of the intimacies of these terrestrial gods, idealized in Greek myth, saying that "Mama" was liberal and that she laid with any man. After marrying Manco Capac she had a son through incest, hiding him in the Tamputocco cave, and entrusting a nurse called Pillco Ziza to breastfeed him. Once two years had gone by, he was to be shown in public, and proclaimed son of the Sun and the Moon, and brother of Venus.⁴⁰

One concludes, therefore, that there is a strong parallel between the founders of the Incan empire and the divinities which Greek mythology confines to the Underworld. This parallelism extends to kinship as well. Hence, Mama Guaco Coya corresponds to Demeter, and her sister, Mama Cora, has the same name as her companion Core, in Greek mythology. Mama Guaco's son, Manco Capac, corresponds to Demeter's son, Plutus, and the ambiguity of Manco Capac - as son and husband of Mama Guaco - is similar to the confusion between Plutus or Iacchos with Zagreus. The Tamputocco cave, from where the founders of the Incan empire emerged, resembles the Cretan cave from where Zeus was born. The wet nurse Pillco Ziza, who suckled Manco Capac in the Tamputocco cave, corresponds to Amalthea or Baubo, who suckled Zeus or Plutus on the island of Crete. Manco Capac's father, to some, is the Sun; to others, his father is unknown. Likewise, Plutu's father, to some, is Zeus; to others, his father is Zagreus or Iasion.

THE RELIGION OF THE INCA KINGS

Father Blas Valera has a great deal to say about the religion of the Inca kings.⁴¹ He spoke indigenous Peruvian languages and traveled throughout Peru in the second half of the 16th century, coming into contact with the wise *amautas* (Quechuan name that could be related to the Greek word *matas*,⁴² meaning “wisdom” or “knowledge”) and with the last *quipocamayos* (masters of the quipus), thus saving valuable information on the Inca religion which, otherwise, would have been lost forever. Valera relates that the Quechuans believed the earth, the sky, the sun and the moon were created by *Illa Tecce*, the eternal light. Then came *Pirua Pacaric Manco Inca*, who civilized the land that became known as *Pirua* (the Spaniards pronounced it “Peru”). The principal god of *Pirua* was *Viracocha* and, after the arrival of the civilizer, he became known as *Illa Tecce Viracocha*.

Note that the first Quechuan name of the god, *Illa*, corresponds to the oldest Semitic name of the principal god of Anatolia (circa 2,000 B.C.). There, *Ila prat* and *Ila-Kabkabu* were theophorous names.⁴³ *Ila*, or *Ilū*, also means god in Assyrian. *EI* has the same meaning among the Hittites and in Ugaritic texts, or even *Il*, or *Ilum*, among the Arabs of the Arabian peninsula.⁴⁴ The second Quechuan name of the god, *Tecce*, or *Tiksi*,⁴⁵ as Guamán Poma de Ayala called it, can be identified with *Tyche* [Τύχη], usually described as the personification of Fate.⁴⁶ Syrian epigraphic texts, with bilingual Greco-Semitic religious inscriptions, found by French archaeologists in Palmyra, identify Tyche with the ancient Semitic god Gad. Later, under Hellenic influence, he was represented with feminine attributes, as a goddess consecrated to the olive tree, known as Tyche.⁴⁷ In that part of Asia Minor, Tyche was also compared with Athena, Aphrodite, Selene, Rhea, Artemis, Nemesis and with the Moirae. According to Lucian, the Syrian goddess Atargatis - identified with Tyche - was the same which the Greeks called Hera or Urania, the celestial goddess.⁴⁸ The third name, *Viracocha* - added to *Illa* after the arrival of *Pirua Pacaric Manco Inca* - means “rising from the foam of the sea” (*vira* = fat or foam and *cocha* = lake or sea), which identifies him with Aphrodite (the Greek goddess born from the foam of the sea). The theophoric name *Pirua* - the civilizer of Peru - as Blas Valera indicates, corresponds to the planet Jupiter.

Continuing with Valera’s information on the religion of the Incas, the Sun was considered the son of *Illa Tecce*, and the light emanating from

him was part of his divine spirit. This was so that he could enlighten the kings and their governments as well as reckon days, years and the seasons. The Moon, who was the sister and wife of the Sun, was also given powers by *Illa Tece*, making her the lady of the sea and the winds, of queens and princesses. Called *Coya* (queen), the Moon was the protectress of women and of births, and was considered the queen of the sky.

Dawn, as well as the day planet Venus, were called *Chasca*, the goddess of virgins and princesses, of wild flowers and mistress of twilight and granaries. They believed it was she who sprinkled the dew at dawn, shaking out her long hair upon awakening (*Chasca* means long hair).

Jupiter was called *Pirua* by Valera, saying that *Illa Tece* ordered this planet to be the patron of the empire and of Peru's provinces. Hence, he was given offerings of the best foods the earth produced, such as fruit and corn. He was also entrusted with the people's treasures, granaries, clothes and arms.

Blas Valera cites the great *Pirua Pacaric Manco Inca* as the first civilizer of Peru, or "the first settler of these lands," mentioning that, on his death, he went to Pirua's abode, in heaven, where the god paid him honor. In other versions, Cuzco's civilizer and founder is called *Manco Capac*. However, in the Ayar brothers legend, by Fernando de Montesinos⁴⁹ (who based his Inca kings story on a lost manuscript by Blas Valera), the brother who founded Cuzco was *Ayar Uchu Tupac* (Tupac means "grandiose" or "magnificent," in Quechuan), changing his name to *Pirua Pacaric Manco* because "he had to be like the god of that land," i.e., with the same name as the civilizer's.

The planet Mars was called *Aucayoc*, responsible for wars and soldiers. Mercury was called *Catuilla*, responsible for merchants, land travelers and messengers. Blas Valera also identifies the god *Hauch'a* ("cruel," "tyrant," "inhuman," "fury" or "rage," in Quechuan) with Saturn, because he was responsible for plagues, death, famine, lightning and thunder; it was said he was armed with a club, a bow and an arrow, to hurt and punish those who did wrong.

According to Blas Valera, the Incas made certain stars and constellations responsible for raising, protecting and feeding livestock; others looked after pumas, serpents, plants and so on. Each star or constellation was responsible for something on earth.

Blas Valera cites the quipus of Paccaritambo as his source of

knowledge. This indicates that, at least until 1,574, when he was ordained in Cuzco, he had direct access to the Incan priesthood's ancient historical records.

SACRED PLACES AND TEMPLES

The ancient Peruvians, relates Blas Valera, knew two types of temples, some natural and others artificial. The natural ones - mountain tops, torrential rivers, fountains, springs, caves, lakes, the sea, the air and the sky - were venerated as sanctuaries because they were the work of the great god *Illa Tecce*.

They worshipped *Illa Tecce Viracocha* on the highest mountain passes and other dangerous places (*apachitas*), in caves (*huacas*), on rocky summits and hills (*oros*), at natural springs (*pucuicos*) or directed their prayers to the sky (*hanan-pacha*). Temples were not erected, just small stone altars - *osnos* - for their sacrifices. With time, they constructed low temples at high places and gradually they began to build temples in villages and cities, erecting sumptuous edifices, of which only ruins remain. One must underscore that, already in 1574, Blas Valera referred to these sumptuous stone edifices as ruins.

Valera says that the temples at Cuzco were constructed with a spacious nave, at the end of which was an adoratorium with gold and silver idols; the decoration of the temple and altar depended on the character of the idol.

The large temple of *Illa Tecce Viracocha* was located where Cuzco's cathedral stands today. The modern altar occupies the same spot where the marble sculpture of *Viracocha* once stood, representing a man of normal height, with hair, face, clothes and footwear - just like the Spaniards portrayed the apostle Bartholomew. The sculpture was spirited by the Indians to Cacha, to be hidden in the temple of *Viracocha*, next to the volcano, but it was found and destroyed by the region's Spanish magistrate. The altar was sculpted using the same type of marble as the statue, and the floor of the temple was covered with the finest woolen carpets. Offerings of aromatic oils and cereals harvested from the fields were burnt on the altar. In the atrium was a wide flight of steps where priests sacrificed livestock to the god.⁵⁰ According to the archaeologist Luis Pardo, recent excavations have revealed polygonal stones of destroyed walls, which indicate that the palace was built using the same technique as the palace in Hatum-rumiyoc-huasi.⁵¹

In the temple of the planet *Pirua* (Jupiter) there were always flowers and ears of corn and the temple was permanently illuminated by lamps. The idol was represented with fresh ears of corn in its hands. Its location in Cuzco is unknown, but the plate depicting the gods of the Underworld (Fig. VI-9) is highly suggestive, with Hades holding a fresh sheaf of wheat in his hands, demonstrating how mythological traditions were preserved in Greco-Roman iconographic representations.



Figure VI- 9. Plaque representing Hades with the cereal goddess (M. J. Richepin, *Nueva Mitología Ilustrada*).

The temple of the zodiac sign Scorpio, called *Amaru cancha*, was low. The metallic idol represented a figure of a serpent or dragon with a scorpion in its mouth. Only priests could enter the temple's sanctuary. There were spacious atriums for sacrifices. The University of Mattuchaca, as well as The Fellowship of Jesus and Lourdes Churches,⁵² stand on its foundations today.

Cuzco's most famous temple was Coricancha, meaning

“courtyard of gold” in Quechuan, because its walls, courtyard and gardens were literally covered in gold. It was also called *Intiwasi*, i.e., “House of the Sun.” The gold remained until the Spanish invasion, when it was stripped of its glittering metal. Of its splendor, Coricancha today conserves only its name, and whatever remains of its magnificent stone walls are to be found under the shade of the Santo Domingo Church.

But that is another chapter.

CHAPTER VII

THE GOLDEN GARDEN OF THE HESPERIDES

*"Tempus, Atla, ueniet, tua quo
spoliabitur auro
Arbor et hunc praedae titulum Ioue natus
habebit."*

Ovid, *Metamorphoses*, IV, 644-645

INTRODUCTION

The greatest impediment to the progress of science is not ignorance, but overcoming traditional mistakes. In today's information technology era, one can understand certain mechanisms of the human mind. For example, in order to use a computer, it needs to be programmed and then fed certain data. Analogously, the mind retains information, and those who are deeply involved in specific areas of knowledge tend to be too specialized. This situation can create a vicious circle, a sort of whirlpool of knowledge. The Greek myth of the Garden of the Hesperides and the temple of Coricancha in Cuzco, for example, are separate and specific matters, each orbiting in its own circle; the former, in the field of mythology or psychology, the latter, in the field of Peruvian archaeology.

If one asks a mythology or psychology expert about the significance of the Garden of the Hesperides, he would probably reply that the dragon guarding the golden apples represents the negative maternal image or the “resistance” against incest, or the anguish of incest; or even that the dragon represents the anguish arising from the sin of incest.¹ A specialist in Incan archaeology would explain, equally confidently, that the temple of Coricancha was founded by the first Inca, Manco Capac, in the beginning of the 13th century.²

One can conclude that the more one is an expert in one's chosen field - with pat answers - the more one mimics a computer. Hence, it would seem quite impossible to ever find any sort of relationship between the Garden of the Hesperides and Coricancha.

VALUABLE INFORMATION IN AN ERRONEOUS STORY

Garcilaso de La Vega describes, quite appropriately, in his preamble, “The Temple of the Sun and its Wealth,” the great religious importance of Cuzco.³ “Cuzco was worshipped by the Indians as something sacred,” and continues by saying “such was the degree of adoration and regard for the city that if two Indians of the same social class would find themselves along a path, one going and the other coming from Cuzco, the one coming was considered superior, solely for having been in the holy city.” Lamentably, Garcilaso wasn’t able to detect in that gesture the deep religious beliefs of the race and the ancient roots of the holy city; instead of writing the history of the Inca kings, such as those he found in the lost Blas Valera manuscript - in his possession since 1600 - he made it into a chronicle and romanticized the story. To avoid inconvenient data that he did not understand, or to alter their details, he used a simple alibi: the manuscript was burnt in parts or incomplete. Therefore, should anyone familiar with Valera’s work discover parts that were untrue, he would declare that the missing chronology of the Inca kings where in the “burnt” part of the manuscript. The “unburnt” parts as well as the information gathered by Garcilaso and other chroniclers, gives one an idea of Coricancha’s fabulous wealth.

Coricancha was a temple which preserved the rites and ancient religious traditions of the Inca kings. After having been sacked, in 1533, it was given to Juan Pizarro by his brother, Francisco Pizarro, who, in turn, passed it over to the Dominican monks. In their hands, this great Incan house of worship, suffered severe degradation. Part of its magnificent stone walls were demolished and on its ruins were constructed Santo Domingo Church and ancillary buildings.⁴

The temple, *Inti-huasi*, dedicated to the sun god, was located where the church now stands. Its four walls were sheathed in gold from top to bottom. Hanging on the wall behind the present altar, was an image of the sun, its round face surrounded by flames and rays, fabricated in gold plates thicker than those used on the walls.⁵ The image was called *Punchao*, because it personified day.⁶ The disk faced east so that, at dawn, it reflected the sun’s first rays, simulating its brilliance. The light was so intense that water, blown through tubes by the temple priests, created a rainbow.⁷

Garcilaso thought that this artifact belonged to Mansio Sierra, as booty from the sack of Cuzco. Actually, *Punchão* was never found. Friar

Lizarraga explains the story differently. According to him, the gold disk (which probably was engraved with the sun's image) was the lid to an octagonal stone basin, placed in the center of Coricancha's courtyard.⁸ The plundered lid came into Mansio Sierra's hands, who soon lost it while gambling and which gave origin to the proverb, "Gamble the sun before daybreak."⁹

Besides *Inti-huasi*'s temple, according to Garcilaso, surrounding Coricancha's courtyard were five other rectangular rooms, constructed of the same type of stone and refined technique. The room nearest to the sun temple was dedicated to the worship of the moon - considered the sun's spouse - which was represented as a woman's face on a disk. The room's walls and door were sheathed in silver. Next to it was a room dedicated to the planet Venus and the Pleiades. The Incas called these heavenly bodies *Chasca*, referring to the vespertine or the matutinal companion of the sun, and *Collca* (granary), *Catequilla* or *Cataquillay*, referring to the Pleiades. This chamber was also covered in silver.¹⁰ Another room was dedicated to lightning, thunder and the thunderbolt, which were all called *Illapa*. According to Garcilaso, the Incas had no image to represent them¹¹ which, apparently, in Garcilaso's opinion, suggested the Incas had knowledge of a god analogous to the Christian Trinity of Father, Son and Holy Ghost. An Indian chronicler, Santa Cruz Pachacuti-Yamqui, presents a drawing of the divinities worshipped in Coricancha, amongst which is the drawing of a serpentine thunderbolt called *Illapa*.¹² The fourth room was dedicated to the rainbow, represented by a series of multicolored semicircles covering an entire wall. The fifth and last room, covered in gold, was destined to a high priest, a sort of pope, called *Villac-umu*, who shared the room with other temple priests. All priests, without exception, were of royal blood.¹³

THE VIRGINS OF THE SUN

The Temple of the Sun had a sacrificial fire, *Nina-Villa*, which remained lit permanently. Tending this eternal flame was the responsibility of a host of priestesses, similar to Rome's vestal virgins, or as the eternal fire of the goddess Hestia, lit permanently in the temple of Apollo at Delphi. This information was gathered from the Cuzco quipus, by the Jesuit Blas Valera, in the second half of the 16th century,¹⁴ he being the first historian to note the similarity to the Roman priestesses of fire. He also explains in detail the selection, customs and functions of the Sun's virgins, called

acllas, and the *Mamaconas*, the mothers superior. The latter were members of the royal family and, like the *acllas*, they had to join the convent, called *aclla-huasi*, before reaching adolescence. Only the most perfect, and without facial blemishes, were chosen. They had to be virgins and to remain that way, isolated from the outside world for the rest of their lives. They bore the responsibility of being the spouses incarnate of the sun. A severe sentence was imposed on the unlucky transgressors: the maiden was buried alive and her accomplice hanged. As if that were not punishment enough for such a serious offense, their families, servants, relatives, neighbors and the entire village were put to death. So that no one and nothing would be left to recall the event, livestock were killed, all buildings were demolished and the land was covered with salt and stones, so that the wretched place would remain barren forever.¹⁵

THE GOLDEN CROP OF CORICANCHA'S GARDEN

Coricancha's inner courtyard was considered a sacred garden, which only the Incas and their relatives could tend. It had two water fountains fed from distant springs. Fertilizer was brought in from the distant Chincha Islands. With great elation and resplendent in rich clothes, the descendants of the Incas cultivated the garden for the last time a few years after the Spanish conquest. At that time, the sacred garden had been already transformed into a vegetable garden by the Dominican monks who, fearing that such elation might be a hidden form of pagan worship, forbade such activities. According to Friar Reginaldo Lizarraga, a monk of the order, there was an artificial corn field in the garden prior to the arrival of the Spaniards, wherein the stalks were fashioned of silver and the ears in gold.¹⁶

The most fantastic achievement of Coricancha's temple was its garden, reproduced in gold, which some chroniclers placed within the temple, or *cancha*, and others outside the curved wall of the "House of the Sun." Garcilaso indicates that it was situated on the site of the vegetable garden of the Dominican monks, and states that the garden had flowers, grass, plants and trees, all reproduced in gold and silver. There were likenesses of lizards, snakes, snails, butterflies and various types of birds; each in a life-like pose. The garden also reproduced a corn field, quinoa plants, legumes and fruit trees, all in gold and silver. There were simulated tree barks and gold male and female human figures, as well as a number of large rounded jars used for the storage of corn - called *piruas* - made

entirely of gold.¹⁷

Other historians believed the golden garden to be situated in front of the curved stone wall, which still stands on the west corner of Coricancha. Squier agrees and says it was arranged in terraces, called *andenes*, measuring 180 m in length and 90 m in width.¹⁸ Cieza de Leon, a highly respected historian of the 16th century, gathered the following information about the precious garden of the Incas:¹⁹

They had a garden in which the clods were reproduced in fine gold, over which they planted artificial maize made of gold. The ears, the stalks and leaves were firmly planted, in a way that they could resist the strongest winds without being blown over. The garden also contained more than twenty sheep with their lambs all made of gold, there were also shepherds represented in the same metal, armed with slings and carrying staffs who appeared to guard the sheep. There were many vessels of gold and silver, pots and vases with emeralds, as well as all kinds of containers made with the finest gold.

The rather accurate description of the items in Coricancha's garden were not merely recorded by chroniclers according to Incan traditions. Its existence can be verified in many 16th-century Spanish letters and annals. The tribal chief of Jauja, for example, gave the Spaniards four life-size gold "sheep" (obviously, llamas, vicuñas or similar camelids), two life-size gold shepherds and a gold water fountain.²⁰ Corn stalks with golden ears appear in Hernando Pizarro's inventory of precious objects given to King Charles V of Spain.²¹ In Espinosa's letter to the Spanish king, he writes that the Inca Atahualpa offered Pizarro "six sheep and their shepherds in a pasture; all of gold, so heavy that eighty Indians weren't able to carry."²² Jerez's report mentions a silver eagle, with four vessels resting against its body, each large enough to hold a cow.²³ One can also surmise that Coricancha's rooms were all covered in gold. More than five hundred plates of gold were torn from its walls, weighing 4-12 pounds each. They were immediately melted down with other pieces of gold, 1,320,000 pesos of fine gold (5,518 kg).²⁴

HIDDEN TREASURES IN THE FORTRESS OF SACSAYHUAMAN

So that it would not fall into the hands of the conquistadors, a large quantity of gold objects were hidden by the Indians. Pedro Pizarro, one of the first soldiers to enter the Incan capital, relates the discovery of one of these hidden treasures. Amongst the pieces found, which most distressed

the Indians, was the gold statue of the first lord that conquered the earth, probably the founder of Cuzco.²⁵ Some gold sandals were also found, which probably belonged to a queen or princess. Yet, among all the still unsolved mysteries, what sparks most the imagination, is the persistent reference to hidden treasures beneath Sacsahuaman's fortress, located on a limestone hill, above Cuzco's main plaza. According to Pedro Pizarro, the Indians hid four thousand loads of gold and silver in a large underground chamber, below the fortress.²⁶ Huamán Poma de Ayala also mentions the existence of a *Chingana*, i.e., a labyrinth which, from a point near the Sacsahuaman plain, extends from beneath the fortress to as far as Coricancha.²⁷ It would not be surprising if, some day, Sacsahuaman would turn out to be an ancient Fort Knox. How else does one justify the construction of such a powerful fortification?

When the Spaniards entered Cuzco, the fortress was in perfect condition, and was used as a gigantic warehouse. It had enough rooms to accommodate more than ten thousand Indians. Despite the curious use of the fortress, and the interesting comments by Pedro Pizarro, based on Garcilaso's writings, some archaeologists believe that Sacsahuaman was still unfinished at the time. To date, no serious study has been undertaken to justify such an opinion. There has been no radiocarbon dating of Sacsahuaman, nor of any other cyclopean construction in Cuzco. On the contrary, there is a considerable body of evidence showing the total incapability of correlating archaeological findings with official Incan chronology. A case in point is the 1940-1945 archaeological diggings in Pachacamac, some 20 km south of Lima.²⁸ The lower stratum of Pachacamac, below the mud brick constructions - considered to be more ancient than those of the Incas - revealed the famous stone walls and the characteristic trapezoidal portals attributed to the Incas.

THE GARDEN OF THE HESPERIDES AND ITS REMAINS

Archaeologists who have studied Coricancha's temple remains are of the unanimous opinion that the four magnificent rectangular rooms - paired face-to-face on a northwest-southeast axis, and surrounding the inner courtyard, or *cancha* - are the temple's most important architectural structures. These rooms have trapezoidal portals and niches, with perforations along the jambs and lintels for fastening heavy metallic objects (Illus. 29a). In the middle of the courtyard stood the famous octagonal basin. Recent archaeoastronomical studies have revealed

astronomical alignments, called *cheques* (lines or a dispersion of lines²⁹), revealing that Coricancha was an astronomical observatory, not only dealing with the “movement” of the sun and moon, but of various other heavenly bodies. The Pleiades were particularly important to the *amautas* (wise man) and the astrologers of Coricancha.³⁰ The recent study confirms aforementioned historical information concerning the ancient cult of the Pleiades and the planet Venus, practiced by the Inca kings.

The astral cult of the Inca kings reveals another relationship between Coricancha and the Greek myth of the Garden of the Hesperides. In Greek mythology, the seven stars of the Pleiades are related to the seven daughters of Atlas, called Hesperides; Hesperus, one of the names of the planet Venus, was also considered the son of Atlas.

MILLENNIAL ANTIQUITY OF CORICANCHA'S GARDEN

Coricancha's garden of golden fruit was compared with Chinese works of jade and even great antique works, like the plane-tree quoted by Herodotus, and the gold grapevine, with clusters of stone, donated by Pittheus, the Lydian, to Emperor Darius. Lothrop, who sought works in Oriental cultures similar to Cuzco's garden, was unable to identify a place or a time in history that could even compare to its achievements.³¹ The only garden which, by its description, could compare with Coricancha was the mythological Garden of the Hesperides, yet no one made the connection nor could they have, given the accepted scientific thinking that there cannot be a link between myth and reality, particularly here, where Old World myth finds its expression in New World reality.

As long as archaeologists continue to believe that Incan architecture was explained in Garcilaso's writings, and modern symbolists keep insisting that the dragon of the Garden of the Hesperides is a symbolic representation of incest, any attempt to relate the origin of the Incas to Greek mythology is futile. Now that one has the essential elements to make a decisive step, one can correct this catastrophic error and acknowledge the important role the millenary civilization of Inca kings played in world history.

The golden garden of Coricancha could have been started by Manco Capac; but, rather than the generally accepted 13th century, it was probably initiated more than 3,000 years ago, not barely 300 years before the Spanish arrival. This alternative arises after abandoning Garcilaso's naive story and considering the more deserving history of the Incas by

Valera-Montesinos.

As indicated in the previous chapter, Montesinos writes that Pirua Pacaric Manco Inca is thought to be the first Inca king and founder of Cuzco, ruling for more than 60 years.³² His son, Manco Capac, was the second Inca king, who reigned for 30 years.³³ When did these events take place?

One can estimate Cuzco's approximate age by submitting Montesinos's chronological data to simple statistical evaluation. It is necessary, therefore, to assume a mean value for each king's reign, starting from the sixty-second Inca king, Titu Yupangui Pachacuti, and working back until reaching the founder. This time can be calculated, assuming a reign of 25-30 years. With the lower figure, the founder of Cuzco would date back to 1550 B.C., while the higher figure would place him in 1860 B.C. An average reign of 27.5 years would place Cuzco's founding in 1700 B.C.

Declaring the *amautas* as the source of these traditions, Montesinos relates that, during the reign of Manco Capac, a multitude of people arrived, in search of peaceful lands to settle with their families. Among them were many tall and strong workers, called *hatun-runas*.³⁴ Some established themselves in Cuzco, offering their services to the Inca king; others continued north, following the course of the large Andean rivers, such as the Apurímac and Marañón, navigating in rafts.³⁵ After reigning for 30 years, Manco Capac was succeeded by his son, Huanacauri Pirua. The construction of Coricancha's temple begun in this period, and the builders were probably the *hatun-runas*. One cannot determine whether Manco Capac or his successor initiated the temple; in any case, Coricancha was still under construction when Huanacauri's 50-year reign had ended.³⁶

SIMILARITIES BETWEEN INCAN AND MYCENAEAN ARCHITECTURE

Beyond a number of similarities one finds between Greek mythology and Peruvian pre-Colombian traditions, interpreted as cultural manifestations that survived from ancient contacts, one can also note substantial similarities between Incan and Mycenaean architecture, that confirm these contacts. The central niche of the room south of Coricancha's courtyard (Illus. 29a) can be compared to the portal of the second chamber of the

Mycenaean tomb of Orchomenos (Illus. 29b). Both portals are trapezoidal, both have a double jamb and lintel, and both have perfectly aligned and encased stone blocks with perforations for fastening metallic objects. Sacsahuaman's fortress walls and entrance (Illus. 29d) also strongly resemble the walls of the Mycenaean fortress, formerly called Katsingri (Illus. 29e), near the village of Agios Adrianos, in the eastern Argive mountains, and the trapezoidal entrance of Orchomenos's tomb (Illus. 29c).

DECIPHERING THE DRAGON OF THE HESPERIDES

Analogous to the geographical interpretation of the Theban myth, discussed in Chapter IV, the “dragon” or “serpent” that guarded the Garden of the Hesperides can also be interpreted as a mythological allegory of the Amazon River. To decipher this allegory one must also remember that the Marañón and Ucayali Rivers are the main tributaries of the Amazon. In turn, the Ucayali receives the waters of the Vilcanota River, which flows near Cuzco. One can easily note that whoever traveled up to Cuzco from the Atlantic would have imagined that the ocean and the large rivers of the Amazon Basin resembled a “serpent” or a “dragon” with many heads, which had to be conquered in order to reach the shiny metal of Coricancha’s garden.

Besides the gold plants and fruits, what most impressed the visitor to the garden of Coricancha were the gold life-size “sheep” and “rams,” which were really camelids. As the Andean camelids were famous for the fine quality of their wool, but were unknown to the Europeans, they were simply called sheep and rams by the Spaniards. Likewise, the golden apples, or *melas* (μελαζ) in the Garden of the Hesperides - which means apples or sheep in Greek - could also have been an allusion to these golden camelids.

EPILOGUE

This work began with the promise that one can travel to the Underworld, if one believed in the Greek myths and followed the poets' instructions to the letter. Passing through the Pillars of Hercules, and blown by the Boreas (North Wind), the vessel would be carried by ocean currents. Upon the setting of the polar star into the ocean and the emergence of new stars in the firmament, one would reach the shores of a new world, with navigable rivers and vast forests which, judging by the sunken star, seems to be beneath the earth. Finally, to complete the voyage, a great aquatic monster of that subterranean world would have to be subdued. The task achieved, one would remark how its sprawling body covered a forest area equal to the serpent that separates the two bears in the sky! Here, one finds the famous landmark of white rocks (*leucas Petra*)—in the *Pongo de Manseriche*—a sure indication that one has reached the gates to Pluto's domain. Proceeding through the dreadful canyon, the roaring confluence of the Marañón and Santiago Rivers appears soon ahead. Passing in front of a menacing black rock in the middle of the current, one is nearly shipwrecked in Tartarus, engulfed by frightful, and perhaps fatal, whirlpools. Beyond that frightening gate, protected by other no less fearful gates, are the ruins of the famous Garden of the Hesperides—once bearing golden fruits and plants—within a sacred enclosure tended by the Inca kings, said to be sons of the sun and descendants of the gods. Yes, one has arrived to mysterious Peru—the former Underworld, the fearful abode of Hades and Persephone.

The main tributaries of the serpent-like Amazon River originate in the Peruvian Andes. These mountains are so high that their majestic snowbound peaks are ever nestled in white clouds, seemingly supporting the sky. It is here that one finally finds the Gorgon's palace and, nearby, the mythological Atlas, the lofty mountain which Herodotus, the father of history—believing Hesiod's poetry—claimed to have found in Africa. One travels through space and time in this recently discovered world, guided by Raimondi. One is amazed by all the sights; what seemed incomprehensible in the past, now reveals its meaning. The ruins of Chavín de Huantar are the fearful abode of the Gorgons, of Hades and of Persephone!

With Hesiod's help, one discovers that the diorite "Lanzón" is the oldest anthropomorphic image of the dreaded Gorgon. The bas-reliefs on the stone - which archaeologists call feathered felines - are the oldest

representations of ferocious Cerberus, guardian of the Underworld, while the high relief of the Raimondi stele reveals the hundred-armed giant Typhon, son of Sky and Tartarus who, with his colossal strength, attempted to depose Jupiter, in a celestial battle that nearly destroyed the earth.

Wandering in the Underworld, one passes in front of the demons of Chavin Palace, prudently relying on Greek mythology for their significance. Despite such care, it is difficult to control one's curiosity, sometimes getting carried away by speculation. The palace's labyrinthine structure is architecturally and acoustically fascinating, implying an advanced knowledge of hydro-acoustic engineering. One notes its resemblance to the mythological labyrinth constructed by the Athenian Daedalus, on the orders of Minos, the legendary legislator of the Underworld!

The Minotaur could have actually existed as a terrifying idol in the center of a labyrinth. Be it by the fearsome frown with the bull-like nasal fossae, or by the sounds emitted in the subterranean galleries, the myth of the Minotaur could have originated in Chavin de Huantar. If one demonstrated that the massive 4-m high diorite "Lanzón", suspended like a diapason in the middle of the labyrinth, could vibrate and resonate within the cavities of the palace to produce the sound of a bellowing bull, then it must certainly have inspired the myth. Other coincidences reinforce this suspicion: not only does Chavin's magnificent architecture reveal work worthy of Daedalus, but its fantastic stone sculptures and reliefs do so. The number seven is conspicuous in Chavin's symbology; likewise, seven young couples were sacrificed each year to the Minotaur. And the Gorgon's death is similar to the Minotaur's: both died at the hand of famous heroes, Perseus and Theseus, respectively.

Contrary to the theory assumed by symbolists, the Greek myths of the Underworld could be literary or artistic fragments based on real facts, inspired by voyages and pre-historical contacts with South America. Hesiod's *Theogony* was the starting point, allowing one to reach this conclusion. One can also verify that there are important mythological fragments in Homer's *Odyssey* and in the Theban myths preserved by Ovid in *Metamorphoses*. Though in a preliminary phase, the present physical interpretation of the myths suggests a specific formalism of its general structure, according to the following definition.

The myth, according to this hypothesis, like any other historical

or imaginary narrative (fable), would form a part of the set of human activities defined by parameters a , b , t and v , where a is the real part and b the imaginary part of a myth, t is time and v is the space or geographical place where $a + b$ were observed or described. Values a and b , representing the narrative of the myth, could also be defined as an element of the complex plane, $a + bi$, where $i = \sqrt{-1}$, inserted in quadridimensional historical space (t, v) . This model can be useful if one always takes into account certain differences between mythical and historical thought. The fundamental difference between myth and history is that the former is not necessarily univocal to reality, i.e., two or more historical events or two or more entities or topographic sites can give origin to or be associated with a unique myth if they remain within certain parameters of similarity. By the nature of the real part, a , the model allows one to classify the myths of the Underworld as: iconographic, allegoric and/or descriptive.

An example of the first category can be found in the Hesiodic description of the Hecatoncheires, which seems similar to an image found in the Raimondi stele. The Theban myth of the Phoenician battle, led by Cadmus, against an immense serpent, is an example of the second type, in that it is an epic allegory that praises the deeds of the discovery of Brazil and the navigation of the Amazon by the Phoenicians. Finally, the real part of the myth corresponds to a topographic place, such as the confluence of the Styx and Pyriphlegethon Rivers, described in Homer's *NEKYIA*, identified as either the confluence of the Marañón and Santiago Rivers or the Marañón and Ucayali Rivers. Here, one can also observe a lack of univocality between myth and reality: two different river confluences, by their similarity, correspond to one unique description of the myth.

Where does the present interpretation of the myth stand in relation to other theories? It is, in fact, perfectly compatible with classical thinking, such as when Pausanias (ref. 27, Chap. IV) states that the ancient Hellenes - the ones considered wise - expressed their thoughts indirectly, in the form of an enigma; or in Euripides speaking through the lips of Tiresias (*Bacchants*, verse 200): *Myths are ancestral traditions - as old as time - hermetic, and cannot be understood even by the most sophisticated minds.* As for modern authors, one can mention two schools that had greater acceptance. First, the Central-European schools that coined *Pan-Babylonism*, which attributes the origin of all myths to ancient Mesopotamian cultures, and the key to their understanding in the astral or

planetary character of mythology¹². These schools, ever looking East, would find it difficult to arrive at the herein proposed solution, for facing precisely the opposite direction. There is also the Zurich school, led by C. G. Jung, which sees myths as nothing more than manifestations of the *Collective Unconscious* channeled into archetypes. This school was criticized for a certain *lack of methodology*¹³,² especially with respect to the data and its evaluation, they being managed and accumulated indiscriminately, so that they would corroborate a patient's dreams or fantasies with such and such a complex. This procedure might be of great use in psychoanalytic treatment; it is regrettable, however, to claim it is the key to the myths - the psychiatric key rather than the astronomical key of the *Pan-Babylonists*. Certainly subconscious psychic activities can be an important element in the structure of a myth, but not the way the Jungian school claims. The proposed model demonstrates where the symbolists should concentrate their efforts: in parameter *b*, which characterizes the imaginary composition of the myth.

The principal hypothesis sustaining the psychological theory of modern symbolists is that myths are spontaneous products of the *Collective Unconscious*, manifested independently from any direct cultural contact. C. G. Jung's work, *Metamorphose and Symbols of Libido*, first published in German, in 1,912, expressed the fundamental ideas of the *Collective Unconscious*, and was supported by the accepted anthropological and archaeological ideas of the time. In this work, the similarity between pre-Colombian and Old World myths was considered spontaneous and of an independent nature, a view endorsed by most influential Americanists. One need only look at Fernando de Montesinos' chronicles, translated into English and edited by Philip Ainsworth Means. This Massachusetts professor claimed that Montesinos' chronicle of a hundred and one Inca kings (or one hundred and two, according to Means) could not be true, stating that "if, for the sake of argument, we momentarily assume the list of kings, as given by Montesinos, as a literal transcription of the pre-Inca history of the Andes, we shall find that we are carried far back into antiquity. Such an assumption will take us back to about 1,220 B.C. This date is reached by multiplying the number of kings (102) by the average length of each reign (27 years); the result (2,754) is then subtracted from

¹² Cencillo, Luis, MYTHS Semantic and Reality, p. 293. Library of Christian Authors, Madrid, 1970.

¹³ Ibid. p. 294

the date of the Spanish Conquest (A.D. 1,530)." And, continuing: "This date is untenable, being a great deal too early. In all probability, South America at that time was an uninhabited wilderness."¹⁴ [author's underscores]. It is not surprising, then, that the endorser of this opinion was wrong as well.

Although there is an exhaustive list of evidence favoring cultural diffusion across the Atlantic in proto-historic times, one must find conclusive physical proof of these contacts between Greece and Peru, so that the physical interpretation of myths proposed herein can be accepted definitively. First, it will be necessary to confirm, by scientific radiocarbon or thermoluminescent dating, that Cuzco's cyclopean constructions rest on foundations constructed in the second millennium B.C., contrary to pseudo-scientific theses of archaeologists, which agree with Garcilaso de la Vega's time frame of only a few centuries prior to the Spanish conquest. Second, it will be necessary to undertake a comparative study of Mycenaean and South American bronzes of the same age, so as not to leave any shadow of a doubt. This study should utilize the neutron activation technique, which can determine if a bronze was transported from one continent to another; if such is the case, its isotopic profile, like a fingerprint, will be identical in both samples.

Finally, one must emphasize that a number of other myths related to the Underworld, and interpreted through the proposed model, were not included for lack of space. These myths also corroborate the presence of an ancient Mediterranean civilization in South America. Not included was the comparative study of Theban and pre-Colombian myths preserved by the Indians of Peru, particularly those related to the lineage of Cadmus; his daughter, Semele, and his grandson, Bacchus or Dionysus. Also excluded was a comparative study of the pre-Hellenic Eleusinian mysteries and the religion of the Incas, mentioned briefly in Chapter VI. These themes will be discussed in another book, analyzing the origins of two important Old World religions - the Mysteries of Attis and the Mysteries of Eleusis. Answers will also be sought to explain the origin of the Underworld's Dantesque scenario and, finally, one will investigate the significance of the apocalyptic gods of Chavin de Huantar and why they were chained and imprisoned in the underground labyrinth.

¹⁴ Montesinos, Fernando, *Memorias Antiguas Historiales del Peru*, translated and edited by Sir Clements Markham, pp. xviii-xix, London, 1920.

APPENDIX 1

GREEK	Meaning	QUECHUAN	Meaning2
αγνος	(hagnós) pure, sacred	<i>ahnána</i>	ritual, ceremony
αγνο.τελης	(hagno-telis) sacred rites	<i>ahnay</i>	action, mimic, gesture carried out at a ritual
ανα	(ana) on top, above	<i>hána</i>	on top, above
		<i>hanán</i>	a superior place
αντι	(anti) in view of	<i>anti</i>	eastern region, east
αντην	(antin) in view, in sight, in front		
αντ.ηλιος	(ant-ilios) eastern, turned toward the east		
αυρα	(aura) wind, breeze, puff of air	<i>guairas</i>	furnaces in which the wind blows strong ¹⁵
αηρ	(air) air	<i>waira</i>	wind, air
		<i>wáyra</i>	wind, atmospheric air in motion
Απολλων	(Apollon) solar Greek god Greatest patron of medicine and oracles	<i>Apulu or Apolo</i>	region of a province of Caupolican (Bolivia)
		<i>Apolo-banba</i>	literally, region of Apollo. Capital of the province of Caupoliacan ¹⁶
		<i>Apulli</i>	supreme authority, chief
αρα	(ara) prayer, oration, supplication	<i>arariwa</i>	announcer, guardian of cultivated fields who drives away thieves with shouts.
		<i>arauto</i>	Herald, who announces with shouts the decisions of the day or the week
αρας	(aras) imprecation	<i>aray!</i>	interjection, dammit!

¹ Josep de Acosta, História Natural y Moral de las Indias, p. 148, Ed. Fondode Cultura, Mexico City, 1979.

¹⁶ First citation of this region: Nieto's expedition to Apolobamba, in 1561. Cited by Sarmiento de Gamboa, Pedro in his Historia de los Incas, p. 294.

αρασθαι	(araste) curse	<i>arayhákh!</i>	interjection, scoundrel!
αραιος	(areos) accursed, damned		
νεκυς	(nechys) death	<i>nak'a</i>	behead, decapitate
νεκυια	(nechyia) sacrificing a victim to evoke the dead	<i>nak'ak</i>	beheader, butcher.
		<i>nak'ay</i>	decapitate, act or result of decapitation
πυργος	(pyrgos) enclosure of a citadel with towers, battlement wall, ramparts	<i>pirka</i>	rudimentary wall to enclose a yard
		<i>pirkay</i>	act of raising a wall
πυροτης	(pyrotis) ardor	<i>píris</i>	small, red and very hot “ají” (chili).
πυρινος	(pyrinos) like fire, inflamed, ardent		
πυρος	(pyros) wheat	<i>Pirua</i>	the planet Jupiter; In charge of guarding the harvest, all agricultural products, particularly Indian corn ¹⁷
ρημα	(rima) everything that is said, expression, word, speech, discourse, talker	<i>rima</i>	talk, conversation, chatter
		<i>rimachi</i>	talker
		<i>rimac</i>	poem, verb
		<i>Rimac</i>	ancient oracle in Lima
		<i>rimay</i>	speech, language, verbal expression of thought
ρυμα	(ryma) course of water	<i>Rimac</i>	name of the river that passes through Lima
		<i>Apurimac</i>	name of a large river in the Peruvian Andes. Apu means lord, large, eminent, divinity
ρωμη	(rhomi) strength, body's vigor	<i>rumi</i>	rock, a solid and resistant mineral/ Hard, insensible
ρωμαλεος	(rhomaleos) strong, robust, solid		

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6. Ovid, *Metamorphoses*, Book IV.
7. *Apollodorus*, Book 3; 10, par. 3.
8. Ovid, *Metamorphoses*, Book IV, 625-634.
9. Histoire de l'Academie Royale des Inscriptions et Belles Lettres T-3; *Dissertation sur les Gorgones* by M. l'Abbé Massieu, Mémoires, p. 58 (1711-1717), Paris.
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18. Ibid., III, 57, 1.
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3. Ibid., p. 40, "His Atlas seems to be an isolated mountain in the desert."
4. *Pomponius Mela-Description de la Terre*, Book III, Chap. X, p. 661, J. J. Dubochet et Compagnie, Ed., Paris, 1845.
5. Cited by Malte-Brun, p. 84.

6. Cited by Jerome Carcopino, *Le Maroc Antique*, p. 54, Eighth Edition, Gallimard, Paris, 1948.
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Site [Department, Valley (site)]	Age (BC)	Sample Found	Associated with
Ancash, Casma (Las Haldas)	2820+120	charcoal	pre-Chavin ceramics
Lima, Lurin (La Centinela)	1560+70	cloth	Chavin ceramic
Ancash, Casma (Las Haldas)	1190+80	burnt plants	Chavin ceramic
Lima, Omas (Mound 302)	1110+140	cloth	Chavin ceramic and corn
Ancash, Chavin de Huantar	780+110	charcoal	Chavin de Huantar (galleries of offerings)

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27. a) Referring to the significance of the allegory, Pausanias says the following (Book VIII, VIII, 3-5): "When I began to write my history I was inclined to count these legends as foolishness, but on getting as far as Arcadia I grew to hold a more thoughtful view of them, which is this. In the days of old those Greeks who were considered wise spoke their sayings not straight out but in riddles." Hence Pausanias relates that, in those times - obeying an oracle - the river Ophis of Arcadia received the homonymous name of a dragon or a snake (Ophis means "snake").
- b) The word $\alpha\lambda\lambda\eta\gamma\sigma\tau\alpha$ (allegory) was used by Cicero for the first time (*Oratory*, 27) and by Plutarch (*De la lecture des Poètes*). Before these authors, the symbolic or allegoric meaning was called $\nu\pi\sigma\omega\tau\alpha$, supposition or conjecture.
- c) "Those reflexive minds and critics who tried to penetrate the

significance of the myths,” said Paul Decharmes, “were convinced that besides its apparent external significance, the myths had a hidden internal one.”

“By its nature all poetry is enigmatic,” said Socrates in *Ilia. Alcibiades*. Paul Decharmes *La Critique des Traditions Religieuses chez les Grecs*, p. 272, Alphonse Picard et Fils, Paris, 1904.

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13. To differentiate the colonial Pacaritambo from the legendary, the latter is written according to the Quechuan pronunciation, i.e., Paccaritambo, with an occlusive glottal or mute sound on the letter *c*.
14. The Pelasgians (*Πελασγοί*) were ancient inhabitants of Greece (Homer, *Iliad*, 2, 6, 81), of Asia Minor (Homer, *Iliad*, 2, 840; 10, 429) and of Crete (Homer, *Odyssey*, 19, 77). They were considered Greeks in general (Eurypides, *Orestes*, 857). The Argives (*Αργειοζ*), inhabitants of Argos or Argolis were, by extension, considered Greeks in general (Homer, *Odyssey*, 8, 578). The Achaeans (*Αχαιοζ*) were various peoples who inhabited Thessaly, the Peloponnese and Crete (Homer, *Odyssey*, 19, 175) and Ithaca (Homer, *Odyssey*, 1, 90). The Greeks were called Achaeans by Homer and Hesiod.
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35. Charles Picard, *Les Religions Pré-Helléniques*, p. 174.
36. Yannis Sakellarakis and Efi Sapouna-Sakellarakis, *Drama of Death in a Minoan Temple*, pp. 205-223, National Geographic, Vol. 159, no. 2, Feb. 1981.
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39. Name given to sacred places and objects.
40. Ibid., Guamán Poma de Ayala, pp. 63-64.
41. Blas Valera was the first and foremost Peruvian historian. Born in 1540, son of the Spanish conqueror Luis Valera and Indian from Chachapoyas (possibly daughter of the Indian governor of that Peruvian region), he was baptized with the Christian name of Francisca Perez. The document, from which the present fragment about the Inca religion was extracted, was published in 1879 as an anonymous work by the Spanish Americanist Marcos Jimenez de la Espada, under the title *Tres Relaciones de Antiguedades Peruanas*. The Peruvian historian Francisco A. Loayza identified it as one of Blas Valera's lost works. It is from this source that the present extract is copied, published in the collection *Los Pequeños Grandes Libros de Historia Americana* (series I, Volume VIII) under the title *Las Costumbres Antigas del Perú* by Father Blas Valera of the Assembly of Jesus. Introduction, notes and comments by Francisco A. Loayza, Lima, 1945.
42. In Quechuan, *hamít'a* expresses advice, reason, reflection and thought; *hamu'aru* is "thinker." Garcilaso de la Vega said that the wise were called *amautas*, or *amauta-runas*, as Guamán Poma de Ayala called them. The word *amauta* appears to have the same origin as the Greek words $\mu\alpha\theta\omega\zeta$ (*matos*) and $\mu\alpha\theta\eta\mu\alpha$ (*matema*), meaning study, science, knowledge, and from where the word "mathematics" derives.
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34. *Atumrunas*, in Montesinos' text. *Hatum* means large, larger than medium, in Quechuan. *Runa* means people, person. Consequently, *hatumrunas* means people of high stature.
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ADDENDUM



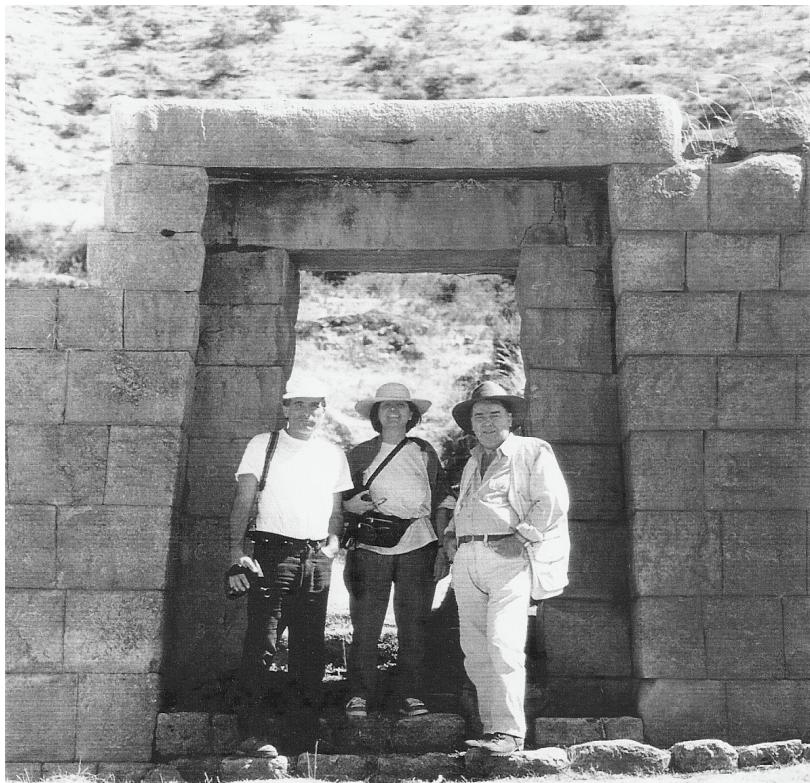
The author presenting his theory to the Pan-Macedonian Association in Melbourne, Australia.



The author presenting his theory at the National Technical University of Athens, Greece.



Mr. Nicolaras presenting the author with a commemorative watch.



Top: A portico at the Pacartitambo Inca ruins. From left to right: Dr. Adamantios Sampson (from the Greek Ministry of Culture), Dr. Maria Kouli (from the NTUA), and the author.
Bottom: In the patio of the Coricancha Palace, Dr. Ftikos receiving the Letter of intent and cooperation agreement from Dr. Mario Gongora.

INSTITUTO NACIONAL DE CULTURA
MUSEO NACIONAL DE ANTROPOLOGIA Y ARQUEOLOGIA

Pueblo Libre, 04 de Enero de 1986

OFICIO N° 025-DMNAA-86

Señor
ENRICO MATTIEVICH
Presente. -

Tengo el agrado de dirigirme a Ud., para felicitarlo por la interesante conferencia que ofreciera sobre "Interpretación Geográfica de la Teogonía de Hesiodo y su relación con Chavín de Huantar", tema que impactó en los asistentes y en especial en los arqueólogos, tanto por su novedoso contenido, como por el interesante enfoque de análisis de los valiosos documentos presentados.

Esperamos que las coincidencias por Ud. descubiertas animen a ampliar las investigaciones sobre el tema.

Agradecemos sinceramente su atención al haber ofrecido en nuestra Institución el resultado de los años de esfuerzo que Ud. viene dedicando a su estudio.

Atentamente,


HERMILIO ROSAS LA NOIRE
Director del Museo Nacional de
Antropología y Arqueología

D/MNAA
HRL/ccm*

Plaza Bolívar s/n Lima 21, Teléfono 63-5070, Cables y Telegramas INGPERU, Casilla 3640 - Lima 100 - Perú

Official INC acknowledgement of the presentation, by the author, of his "Geographic Interpretation of Hesiod's Theogony and its Relationship with Chavín de Huantar", at the Museo Nacional de Antropología y Arqueología, in Lima.

ADDENDUM

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OFICINA DE COOPERACION INTERNACIONAL

Cusco, 24 de Julio de 1997

Of. 110-OCTI-97

Dr.
Christos Ptikos.
Representante de la Universidad Nacional
de Atenas.

Presente.

ASUNTO: ALCANZA CARTA DE INTENSIÓN Y CONVENIO.

Me dirijo a Ud. para hacerle llegar la Carta de Intención y dos ejemplares del Convenio Marco de cooperación entre nuestras Universidades que le hará llegar a su Rector Magnífico Dr. Themistokles Xanthopoulos.

Agradeciéndole hacernos llegar su propuesta, al efecto de suscribirlo en fecha posterior, es propicia la presente para expresarle a Ud. las muestras de mi mayor consideración.

Atenadamente,

mlc/OCTI



Universidad Nacional San Antonio Abad del Cusco
OFICINA DE COOPERACIÓN TÉCNICA
ECONOMICA Y FINANCIERA

Ing. Mario Ríos de Castilla M.
J E F E

Cover letter delivering the draft of the proposed agreement to the National Technical University of Athens, by the University of San Antonio Abad of Cusco

RECTORADO

July 24, 1997

Professor:
 Themistokles Xanthopoulos.
 Rector of Technical University of Athens.

Dear Rector Xanthopoulos:

It is my pleasure to invite the National Technical University of Athens (NTUA) to participate in an agreement with the National University of San Antonio Abad of Cusco, Peru (UNSAAC) to promote future exchanges (for students, academics and administrative staff) between our two institutions.

This invitation follows from the recent positive visit of Dr. Christos Ftikos and Dr. Maria Koui on behalf of NTUA and Dr. Adamantios Sampson on behalf of the Ministry of culture.

UNSAAC currently has exchange agreements with institutions around the world and would like to further our relationships with our Athens counterparts.

I am sure that the National Technical University of Athens has many departments that could benefit from academic exchanges and a close relationship with UNSAAC.

Moreover, the city of Cusco, where the University is located, is one of the most renowned locations in Peru. It has many cultural, and scientific research opportunities to offer in students, academics and researchers.

You will find enclosed a proposed agreement that I hope will provide the foundations for future exchanges between our institutions.

For further information on UNSAAC, please look up our Email :
 Coopindqenqo.unsaac.edu.pe.

I look forward to your response.



Mario Gómez
 Mgt. Mario Góngora Santa Cruz.

Rector de la Universidad Nacional de San Antonio Abad del Cusco.

Official letter from the President of the University of San Antonio Abad of Cusco to the President of the Technical University of Athens, proposing an academic cooperation agreement between the two institutions.



On the upper row are the laurel leaves, and the coca leaves are below; the leaves on the left (1, 2 and 5, 6) are showing their top sides; while those on the right (3, 4, and 7, 8) show their bottom side. Were laurel leaves used as substitute for the unavailable coca leaves in ancient Mediterranean rituals?

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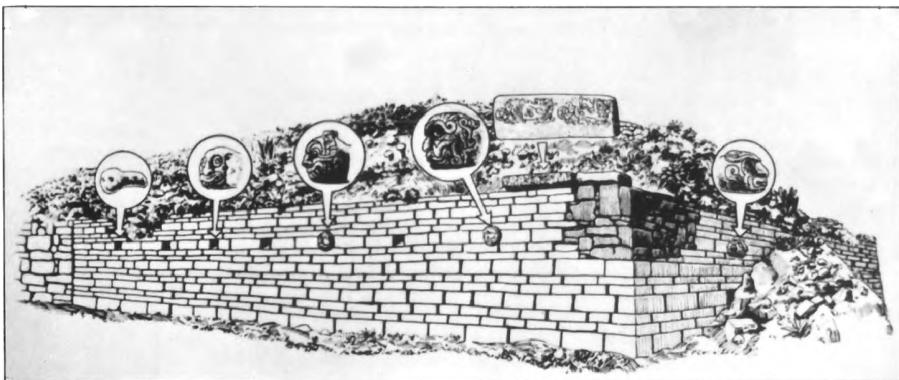
1. The palace of Chavín, with the main plaza (foreground) and Wachecksa Gorge (upper right corner).



2. Southeast corner of the main temple of Chavín.



3. Portico of the main temple, with two perfectly cylindrical granite columns.



4. Rear view of Chavin Palace. The drawing, in the upper corner of the wall, shows the cornice with Cerberus-like figures. It also shows the original positions of the stone heads. Of the 7 heads which were originally placed in the western wall, only 2 were found *in situ* by Tello's excavations.



5. Stele of a Gorgon with 12 serpents. The hand is grasping shells, used as a trumpet in rituals.



6. Stele, in the circular plaza, of a three-fingered Gorgon with two pairs of wings, holding a club.



7. Two labyrinthine galleries in Chavín.



8. The Lanzón monolith with the Gorgon's large image. South side, left; north side, right.



9. Sculpted stone heads, which decorated the outer walls of Chavín Palace. According to Peruvian tradition, they represented the "Huacas," who were petrified by the god Huari. Note the bulging eyes, linking them to the power of the Gorgon, who transformed into stone whoever gazed at her.



10. Chavin's steles with Cerberus-like figures. Located on the threshold of the circular plaza in front of the Old Temple of the Gorgon.



11. Chavín's stele, in high relief, with a Cerberus-like figure riding on clouds or water, symbolized by spirals and sigmoids.



12. Stele, in high relief, found in the first circle of graves in Mycenae.



13. Top view of two “acoustic excitators” (with the flagstones removed), located in front of the main palace of Chavin. The arrow indicates the direction of the water flow.



14. The author, the pilot Felipe de la Rosa and a crew member, prior to departing for the Pongo de Manseriche gap.



15. Aerial view of the confluence of the Imasa and Marañón Rivers.



16. Limestone rocks appear on the Marañón River prior to arriving in the Pongo de Manseriche. This point could have been the celebrated “White Rock.” (Leukas Petra) of Greek mythology, where the two great rivers of the underworld met. An unmistakable landmark of the gateway that led to the domains of Hades.



17. Western entrance to the Pongo de Manseriche, “The Gate That Causes Fear” (Puncu Mancharichuy, in Quechuan).



18. Whirlpool around the submerged rock in the middle of the pongo.



19. Taking advantage of a rare opportunity, the author, left, and the commander of the Teniente Pinglo military base climbed the rock which normally remains submerged.



20. At its narrowest, the pongo is only 30 m wide. The magical waters of “Huacanqui” spring from the cliff on the right.



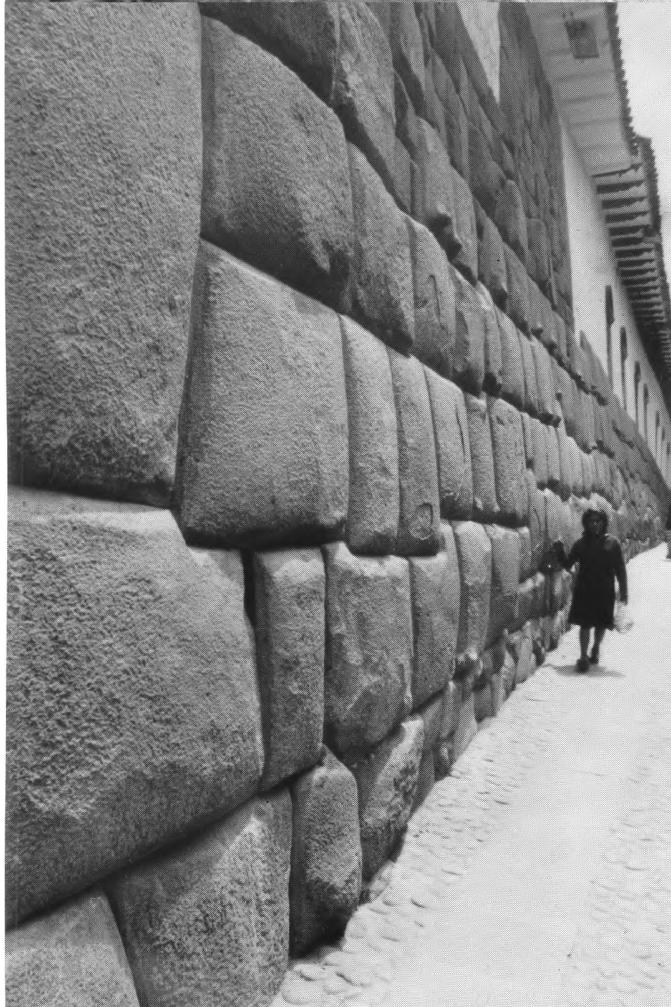
21. Going upstream, the cliff's slope decreases, indicating the end of the pongo.



22. The small and delicate flowers of the molle tree (*Schinus molle*) are white, like Homer's molly flowers.



23. Cyclopean walls of Ollantaytambo (above).



24. Corner of Hatumrumiyoc's palace, in Cuzco (left).



25. Legendary Paccaritambo Valley. Tamputocco Rock stands to the far right of the small village of Mollebamba. The ruins of Paccaritambo lie on the mountain slope (left) above the small village.



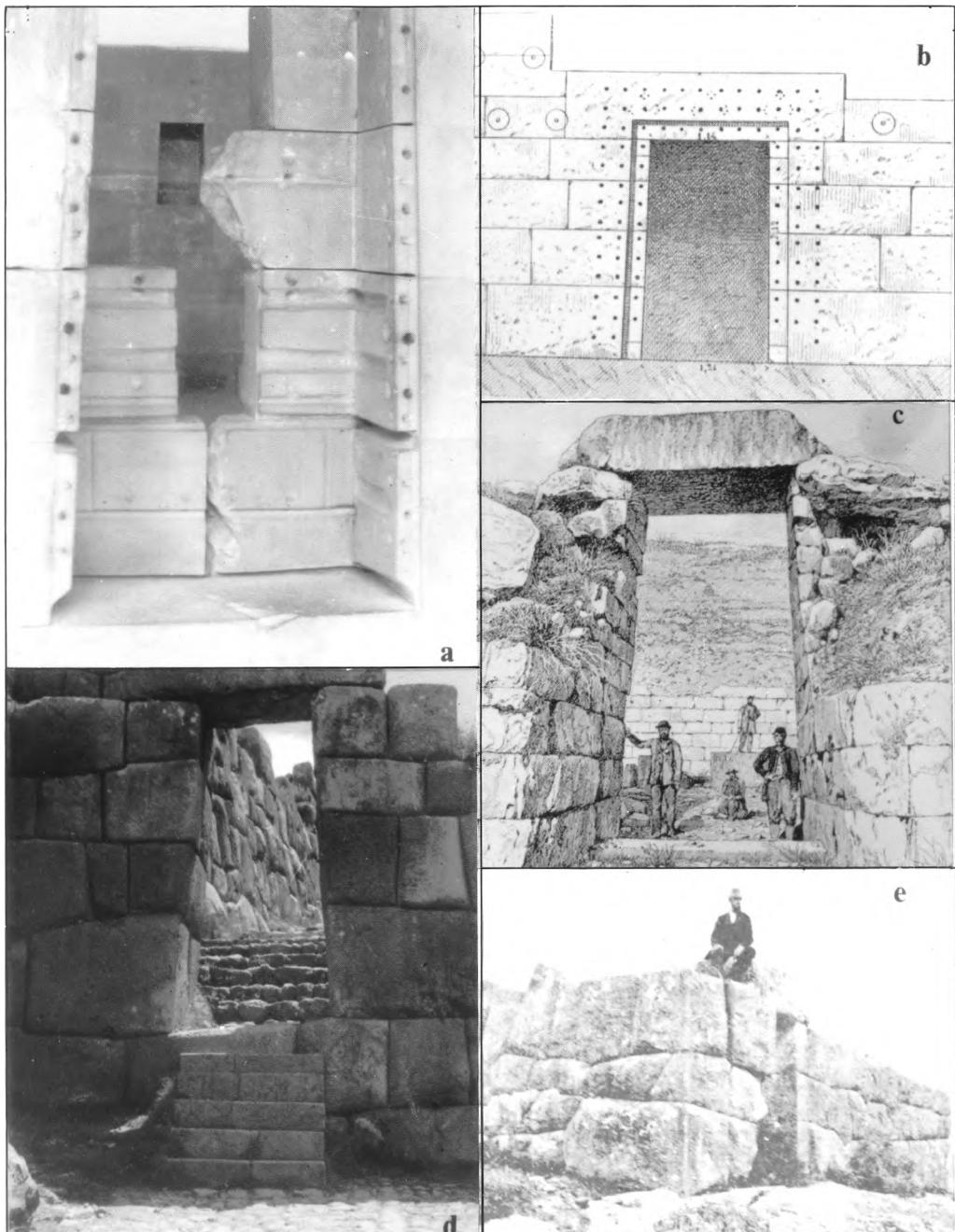
26. The ruins of Paccaritambo, viewed toward the rising sun. The arrow indicates the sacred rock of Tamputocco.



27. Tamputocco's main cave. Legend considers it the birthplace of Manco Capac, founder of the Incan empire.



28. Entrance to the famed Diktaian Cave (Psychro Cave), in Crete, where, according to mythology, Zeus was born. Note the cave's resemblance to the one in Illus. 27.



29. Incan and Mycenaean architecture. The central niche of the Coricancha temple (a) and the cyclopean door of Sacsahuaman in Cuzco (b), bear an extraordinary resemblance to trapezoidal doors found in Greece: Orcomeno's tholos tomb (b and c) and the Mycenaean fortress of Katsingri (e).

